This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

92
l Report
ment of
ty of New York

LANE
MEDICAL LIBRARY

Wisconsin
State Historical Society

ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK

FOR THE

YEAR ENDING DECEMBER 31, 1905.

VOLUME I.

NEW YORK:
MARTIN B. BROWN COMPANY, PRINTERS AND STATIONERS,
Nos. 49 TO 57 PARK PLACE.

1906.

LANE LIBRARY

N52
1906

TABLE OF CONTENTS.

VOL. I.

PAGE

Board of Health—
- Honorary and Consulting Officers 5
- Medical Advisory Board 6
- Medical Examining Board 6
- Officers 3
- Report 9
- Report of Secretary 30

Executive Officers, Department of Health 7
Medical Board of the Willard Parker and Riverside Hospitals 7
Visiting Physicians to the Department of Health Hospitals 6

Reports of—
- Assistant Corporation Counsel 74
- Chemical Laboratory 425
- Chief Clerk 30

Assistant Chief Clerks:
- Borough of The Bronx 63
- Borough of Brooklyn 62
- Borough of Manhattan 59
- Borough of Queens 66
- Borough of Richmond 67

Clinic for Treatment of Communicable Pulmonary Diseases 328
Department of Health Hospitals 459
Diagnosis Laboratory 337
Division of Communicable Diseases 300
- Borough of The Bronx 319
- Borough of Brooklyn 315
- Borough of Manhattan 304
- Borough of Queens 323
- Borough of Richmond 326

29413

Reports of—

Division of Contagious Diseases: PAGE

Borough of The Bronx 288
Borough of Brooklyn 292
Borough of Manhattan 284
Borough of Queens 295
Borough of Richmond 299

Division of Inspections:

Borough of The Bronx 287
Borough of Brooklyn 289
Borough of Manhattan 141
Borough of Queens 294
Borough of Richmond 297

Division of Nursing 419
Ophthalmological Work 285
Sanitary Bureau 92
Vaccine Laboratory 423

INDEX.

	PAGE
Accounts	32
Administration Building, progress of	464
Alcoholic Beverages, analyses of	425
Ambulance, need of, in Brooklyn	316
Ambulance Station—	
Electric motor installed	42
Repairs and alterations	470
Analyses—	
Character of	117, 425
Number made at Chemical Laboratory	117
Animal House—	
Rebuilding of	42
Removal of	42
Appropriations	30, 32
Arrests—	
Borough of The Bronx	287
Division of Inspections	153, 283
During 1905	11, 28
Assistant Chief Clerks, Reports of—	
Borough of Brooklyn	62
Borough of The Bronx	63
Borough of Manhattan	59
Borough of Queens	66
Borough of Richmond	67
Supervision of	57
Assistant Corporation Counsel—	
Report of	74
Work performed by	69
Baking Powders, analyses of	426
Barren Island, inspection of	14
Beach inspection in Borough of Queens	296

	PAGE
Bills—	
Auditing of	33
Number of	34
Birth Certificates—	
Amendment of laws concerning	89
Failure to send	15
Board of Health—	
Honorary and Consulting Officers of	5
Medical Advisory Board of	6
Medical Examining Board of	6
Officers of	3
Report of	9
Visiting physicians to the hospitals of	6
Bob Veal—	
Prosecutions for use of	15-74
Results of criminal action concerning	273
Books, Blanks and Stationery Accounting—	
Requisitions for	44, 47
Requisition card for	46
Bread, analyses of	453
Building operations	24
Addition to Department of Health Building	58
Borough of The Bronx Office	25
Borough of Brooklyn	25, 58
Borough of Manhattan	24
Butter, analyses of	427
Candies—	
Analyses of	453
Inspection of	279
Canned Goods, inspection of	277
Case Fatality—	
Diphtheria	341
Pneumonia	395, 404
Typhoid fever	353
Cash received	32
Carbolic Acid, amendment to Sanitary Code in reference to	10
Catsup, analyses of	431
Central Office Building, need of	27

Cerebro Spinal Meningitis—
Borough of The Bronx..... 320
Borough of Brooklyn..... 317
Borough of Manhattan..... 313
Borough of Queens..... 295
Borough of Richmond..... 326
Card form used in..... 374
Charts of..... 368, 369
Circular in Regard to..... 376
Committee to investigate..... 372
Comparative weekly table for 1905..... 305
Death rate in..... 371, 376, 380
Diagnosis laboratory..... 339
Diphtheria antitoxin, need for..... 373, 384, 388
Increase in death rate from..... 9
Map of cases of..... 370
Number of cases and deaths from..... 367
Number of cases reported..... 29
Remarks concerning 386
Reporting of cases..... 373
Report of 366
Statistical summary of..... 409
Tabulation of cases..... 380

Chemical Laboratory—
Analyses in..... 425
Alcoholic beverages..... 425
Baking powders..... 426
Bread 453
Butter 427
Candies 453
Catsup 431
Condensed milk..... 428
Disinfectants 453
Drugs 453
Evaporated cream..... 431
Fish 434
Flavoring extracts..... 432
Flour, etc. 453
Honeys 436
Ice cream..... 453
Jams, jellies, etc..... 437

	PAGE
Chemical Laboratory—	
Mustards	447
Olive oil	449
Preservatives	453
Spices	444
Syrups	438
Tea, coffee and cocoa	443
Vegetables	450
Vinegar	449
Worcestershire sauce	448
Analyses for County Medical Society	457
Analyses for Police Department	458
Construction and repairs	42
Number of analyses	29
Report of	425
Work performed at	17, 117
Chicken Pox, number of cases reported	29, 112, 295
Chief Clerk, work performed by	30
Child Labor Law—	
Amendment to	19, 88
Certificates issued in Borough of Queens	295
Certificates issued in Borough of Richmond	299
Enforcement of	154
Number of certificates issued	283
Number of violations of	283
Clinic for Treatment of Communicable Pulmonary Diseases—	
Diet kitchens	331
Injunction against	315
Milk and eggs used in	331
Number of cases treated at	116
Nurses in	330
Separate classes for colored people	328
Report of	328
Statistical summary of	414
Work performed in	19
Cocoa, analyses of	443
Coffee—	
Analyses of	443
Inspection of	279

Committee to Investigate— PAGE
Cerebro spinal meningitis 372
Pneumonia 393

Communicable Diseases—
Division of 114, 300
Borough of The Bronx 319
Borough of Brooklyn 315
Borough of Manhattan 304
Borough of Queens 323
Borough of Richmond 326
Cerebro spinal meningitis 313, 317, 320
Complaints 93, 114
Culture stations 318
Diphtheria 313, 317, 321, 327
Diagnosis laboratory 337
Erysipelas 313
Hand book of 302
Inspections of 116
Malaria 317
Pneumonia 321, 313
Statistical summary of 408
Tuberculosis 306, 315, 320, 324, 326
Tuberculosis clinic 19, 328
Tuberculosis exposition 301
Typhoid fever 312, 317, 320, 324, 327

Complaints—
Borough of The Bronx 287
Borough of Brooklyn 289
Borough of Manhattan 61
Borough of Queens 66, 295
Borough of Richmond 297
Child Labor Law 283
Division of Inspections 93, 109, 141, 283
Division of Communicable Diseases 93, 114
Division of Contagious Diseases 93, 114
Number received during 1905 28
Sanitary Bureau 93

Condemned Foods—
Amount of 15, 28, 274, 283
Disposition of 278

	PAGE
Condensed Milk—	
Analyses of	428
Inspection of	279
Contagious Diseases, Division of—	
Borough of The Bronx	288
Borough of Brooklyn	292
Borough of Manhattan	284
Borough of Queens	295
Borough of Richmond	299
Chicken pox	29, 112, 295
Complaints	93
Diphtheria	114
Measles	9, 10, 29, 112, 284, 295, 422
Number of cases reported	29
Number of inspections	93
Nurses in	419
Parotiditis	29, 112, 295
Physicians' reports to	285
Reporting to	18
Scarlet fever	9, 10, 29, 112, 284, 295, 422
Schools, medical inspection of	20, 21, 112, 113, 288, 292, 295, 299, 419
Smallpox	29, 112, 284, 295
Trachoma	57, 285, 286, 422
Vaccinations	28, 111, 116, 284, 288, 292, 296, 299, 424
Whooping cough	29, 112, 295
Work performed by	111
Contracts—	
Executed	38, 39
For hospitals	56
Forms used in	39
How let	37
Corporate Stock	31
Cows, number in City	93
Cow Stables—	
Borough of Brooklyn	241, 252
Borough of Queens	296
Creameries	163
Condition of	225
Inspection of	18, 169, 224
Investigation of	209
Rules and regulations for	176

Culture Stations— PAGE
Borough of Brooklyn 318
Diagnosis laboratory 340
Number of visits to 116
Dairies 163
Borough of Richmond 299
Inspection of 169
Rules and regulations for 185
Dead Animals Removed 14, 123
Death Rate—
Comparative 9, 10
In administration of diphtheria antitoxin 341
In cerebro spinal meningitis 371, 376, 380
In pneumonia 390
In tuberculosis 391
In typhoid fever 353
Department of Health—
Executive Officers 7
Report of 9
Diagnosis Laboratory—
Cerebro spinal meningitis 339
Culture stations 340
Diphtheria 338
Malaria 339
Report of 337
Statistical summary of 417
Tuberculosis 337
Typhoid fever 339
Diarrhœal Diseases—
Death rate in 10
Specimens examined for 117
Diet Kitchens—
Amount distributed from 334
Arrangement with 19
List of 331
Vouchers used in 333
Diphtheria—
Bacteriological diagnosis of 115, 116
Bacteriological examinations for 28

Diphtheria— PAGE

Borough of Manhattan 284
Borough of Queens 295
Borough of Richmond 327
Case fatality in 341, 342
Cases reported 29, 112
Comparative weekly table of 305
Decrease in death rate from 9, 10
Diagnosis laboratory 338
Inspections in 114
Nursing in 422

Diphtheria Antitoxin—

Accounts 52
Administration of 341, 342, 343, 344, 345
Borough of The Bronx 321
Borough of Brooklyn 317
Borough of Manhattan 313
Borough of Queens 323
Borough of Richmond 299
Case fatality in use of 341
Curative injections of 114
Death rate in use of 341, 342, 343, 344, 345
Disbursement of 62, 64, 67, 68
Immunization with 14, 345
New cases treated with 114
Number of c. c. prepared 29, 116
Preparation of 16
Sale and distribution of 52
Summary of cases injected with 411
Ten years' experience with 342
Use of in cerebro spinal meningitis 373, 384, 388
Value of 53
Disbursements by Assistant Chief Clerks 62
Disinfectants, analyses of 453

Disinfection—

Amount of infected goods treated by 28
Borough of The Bronx 288
Borough of Brooklyn 292
Borough of Manhattan 284
Borough of Queens 296

	PAGE
Disinfection—	
Borough of Richmond	300
Houses visited for	28
Dispensaries—	
Eye	285, 286
For tuberculosis in City	312
New buildings for	25
On recreation piers	22
Drugs, analyses of	453
Drug Store—	
Cost of	51
Need of new quarters for	51
Prescriptions in	50, 116
Supplies for	51
Work performed in	16, 50
Eggs, inspection of	279
Employes, number of	34
Erysipelas—	
Borough of Manhattan	313
Number of cases reported	29
Nursing in	422
Statistical summary of cases	410
Evaporated Cream, analyses of	431
Executive Officers	7
Eye Hospitals and Dispensaries—	
Average daily census of	57
Construction and repairs	42
Expenditures for	57
Location of	285
Work performed at	285
Finances	30
Fines Imposed—	
Division of Inspections	283
For milk adulteration	74
For violations of Sanitary Code	15
Fish—	
Amount of condemned and destroyed	28, 274
Amount of trade in	280
Analyses of canned	434

	PAGE
Fish—	
Inspection	28
Kinds dealt in	281
Stores in Manhattan	282
Wagon vendor regulations	283
Flat Wheels, case to determine right to use	82
Flavoring Extracts, analyses of	432
Flour, analyses of	453
Foods—	
Amount of condemned	15, 28, 274, 283, 287
Disposition of condemned	278
Inspection of, Borough of Brooklyn	291
Inspection of, Borough of Manhattan	163, 273
Inspection of, Borough of Queens	295
Number of inspections	28
Fruits—	
Amount of condemned and destroyed	28
Inspection of	275
Number of inspections of	28
Source of supply of	278
Work in conjunction with U. S. Government	278
Fumigation—	
Number performed	114
Improved method of	18
Formaldehyde in	287
Glanders—	
Mallein test applied for	287
Number of horses destroyed for	28, 112, 287, 288, 293, 296
Groceries, inspection of	279
Hand Book of the Division of Communicable Diseases	302
Health Squad	11, 110, 152
Herald Free Ice Fund—	
Co-operation of	22
Tickets for, distributed by inspectors	114
Tickets for, distributed by nurses	423
Honeys, analyses of	436
Honorary and Consulting Officers of the Board of Health	5
Horses—	
Number of, in City	93
Number of dead	94

Hospitals— PAGE
Administration building 464
Ambulances 459, 470
Average daily census of 57
Census of tuberculosis 310
Construction and repairs 41, 42, 43
Contracts executed for 56
Expenditures for 57
Eye 285
Kingston Avenue 135, 465, 472
Medical Board of the Willard Parker and Riverside 7
Otisville 26, 55
Persons removed to 28
Reception 125, 463, 468
Recommendations for 471
Removed to, in The Bronx 288
Removed to, in Richmond 300
Riverside 131, 335
Scarlet fever 464
Storehouse for 16
Visiting physicians to 6
Willard Parker 130, 459, 467
Work performed in 459

Hydrophobia—
Diagnosis of 17, 117
Examinations made for 117
Pasteur treatment of 117
Ice Cream, analyses of 453
Infection of Water with Typhoid Bacilli 360

Inspections, Division of—
Borough of Brooklyn 289
Borough of The Bronx 287
Borough of Manhattan 109, 141
Borough of Queens 294
Borough of Richmond 297
Complaints 93
Inspections 93
Sanitary Bureau 109
Sanitary Police 110

	PAGE
Intubation—	
Number of cases of	114
In Borough of Manhattan	314
Jams, Jellies, etc., analyses of	437
Kingston Avenue Hospital—	
Average daily census of	57
Buildings	25, 473
Cases sent to, in Borough of Brooklyn	294
Construction and repairs	42
Daily cost per capita at	57
Expenditures for	57
Grounds at	465, 473
Medical staff at	472
Morgue building at	43
Need of tuberculosis ward at	316
Nurses' home	465
Nursing at	472
Patients treated at	135, 467
Recommendations	475
Removal of patients	466
Scarlet fever pavilion at	465
Work performed at	472
Laboratories, Division of—	
Chemical	17, 117, 425
Number of inspections	93
Pasteur treatment	117
Pathologist	123
Reception Hospital	465
Research	116
Vaccine	116, 423
Work performed in	116
Laws affecting Department of Health	88
Legal Cases—	
Flat wheels on cars	82
Requiring permit to sell milk	75
Right to maintain tuberculosis clinic	85
To restrain issuing of contract	83
Legal Work—	
Cases	75
Decisions	15
Report of	74

PAGE

Lodging Houses—
Care of 13
Inspection of 141
Number of 142

Malaria—
Borough of Brooklyn 317
Diagnosis Laboratory 339
Specimens of blood examined for 115
Statistical summary of cases of 410

Mallein Serum—
Amount produced 117
Disbursement of 62
Used in tests 287

Measles—
Borough of Manhattan 284
Borough of Queens 295
Decrease in death rate in 9-10
Number of cases reported 29, 112
Nursing in 422

Meat—
Amount condemned and destroyed 28
Inspection of in Borough of Brooklyn 291
Inspection of in Borough of Manhattan 272
Meats, canned and preserved, analyses of 439
Medical Advisory Board, Board of Health 9
Medical Board, Willard Parker and Riverside Hospitals 7
Medical Examining Board 6

Mercantile Establishments—
Borough of Brooklyn 291
Borough of The Bronx 287
Borough of Manhattan 154
Borough of Richmond 299
Work performed at 110
Number of inspections of 28

Milk—
Amount of adulterated, destroyed 28, 287
Amount of, sold in City 18, 170
Area of production 163

Milk— PAGE

Authority to control sale of..... 204
Condensed 279
Condition of creameries..... 225
Cow stables 241
Fines imposed for adulteration of..... 15, 74
Greatest distance brought..... 163
Guarding the City's milk supply..... 17
Imprisonment for adulterating..... 15
Inspection by Summer Corps..... 22
Inspection of farms and creameries..... 169
Inspection in Borough of The Bronx..... 287
Inspection in typhoid fever..... 351
Shortest distance brought..... 163
Necessary temperature of..... 209
Number of inspections..... 28
Permits for sale of..... 75, 270
Rules and regulations for creameries and shipping stations..... 176
Rules and regulations for dairies and farms..... 185
Rules and regulations for the sale of..... 18, 270
Sale of, in Manhattan..... 270
Specimens of, examined..... 28
Work performed by inspectors of..... 272

Milk and Eggs—

Amount of, distributed by diet kitchens..... 331-334
Distributed in Borough of Brooklyn..... 316
Morgue—Number of dead bodies removed to..... 112
Mosquito Extermination..... 23, 298
Mustards—Analyses of..... 447

Nurses—

Assignment of..... 421
Borough of Queens..... 295
Division of Contagious Diseases..... 420
In City tuberculosis dispensaries..... 312
In schools..... 113, 419
Number of, in staff..... 420
Summer Corps..... 420, 423
Tuberculosis 307, 329
Visits of, to Clinic patients..... 330
Work performed by..... 23, 419, 422

PAGE

Offal—Quantity removed 124
Officers of Board of Health 3
Olive Oil—Analyses of 449
Opthalmia Neonatorum—
Control of 286
Inspection of midwives' cases of 286
Opthalmological Work—
Opthalmia neonatorium 286
Report of 285
Trachoma 285, 286, 287
Opinions by Assistant Corporation Counsel 86
Orders—
Borough of The Bronx 60, 287
Borough of Brooklyn 60-290
Borough of Manhattan 59, 60
Borough of Queens 67-60, 295
Borough of Richmond 60-298
Causes for issuances of 11
Sanitary Bureau 96
Otisville Sanatorium—
Acquirement of land for 26, 55
Model farm at 27, 55
Necessity for 19
Site of 55a
Parotiditis—Number of cases reported 29, 112, 295
Pasteur Treatment 117
Pathologist—Statement of work performed 123
Payrolls 34
Pension Fund—
Income for 16
Report of 35
Pensions—
Granted 37
In force 36
Permits—
Issued 283, 295
To collect and transport refuse material 11, 160
For sale of milk 270

	PAGE
Pneumonia—	
Borough of The Bronx	321
Borough of Manhattan	313
Borough of Richmond	326
Card form used in	394
Case fatality in	395, 404
Committee to investigate	393
Comparative weekly tables of	395
Deaths from	392, 404
Death rate	390
Decrease in death rate	9
Hospital cases	395
Report of cases	390
Summary of cases	403, 410
Poultry Slaughter Houses	147
Preservatives—Analyses of	453
Public Baths—Relation to trachoma	286
Public Improvements—	
Care of	13
Supervision of	142
Public Markets—Supervision of	151
Puerperal Septicemia—Statistical summary of cases	410
Rabies—(See Hydrophobia).	
Reception Hospital—	
Admission of patients at	464
Construction and repairs	42, 468
Measles ward	463
New buildings	24
Patients treated	125, 464
Recommendations	471
Scarlet fever ward	463
Work performed	468, 472
Recreation Piers—Dispensaries on	22
Refuse Material—Collection and transportation of	160
Renovation after cases of tuberculosis	290
Requisitions	41
Research Laboratory—	
Plans prepared for	42
Work performed at	116
Revenue bonds	31

PAGE

Riverside Hospital—
Average daily census 57
Construction and repairs 42
Daily cost per capita 57
Expenditures for 57
mprovements 336
New buildings 25
Patients treated 131, 335
Report of 335
Storehouses 16
Waiting list 19

St. John's Guild—
Co-operation of 22
Tickets distributed by inspectors 114
Tickets distributed by nurses 423

Sanitary Bureau—
Complaints 93
Division of Communicable Diseases of 114, 289, 304, 315, 319, 323, 326
Division of Contagious Diseases 111, 284, 288, 292, 295, 299
Division of Inspections 93, 109, 141, 287, 289, 294, 297
Division of Laboratories 116
Work performed by 11, 92

Sanitary Police—(See Health Squad).

Scarlet Fever—
Borough of Manhattan 284
Borough of Queens 295
Decrease in death rate from 9, 10
Nursing in 422
Number of cases reported 29, 112

Scarlet Fever Hospital—
Completion of 464
Progress of 284

Schools—Medical inspection of:
Borough of Brooklyn 292
Borough of The Bronx 288
Borough of Queens 295
Borough of Richmond 299
Diseases cared for 113
Exclusions 20, 113

Schools—Medical inspection of:
New method of 20
Nurses in 113, 419
Physical record in 21
Work performed 112

Searches and Transcripts—
Borough of Brooklyn 63
Borough of The Bronx 63
Borough of Manhattan 60
Borough of Queens 67
Borough of Richmond 69

Secretary of the Department of Health—Report of 30

Slaughter Houses—
Inspection of 14
Necessity of 144
Number of animals killed at 145
Supervision of 143

Smallpox—
Borough of Manhattan 284
Borough of Queens 295
Number of cases reported 29, 112

Smoke—
Borough of Brooklyn 290
Borough of Manhattan 151
Borough of Queens 298

Spices—Analyses of 444

Stables—
Ambulance 42
Number in New York City 93
Number of inspections of 112, 287
Vaccine 42

Steamboat "Riverside"—
Completion of 26
Construction of 54
Launching of 55

Storehouses—
At Riverside Hospital 16, 49
In City 50

PAGE

Straus Milk Depots—
Co-operation of 22
Tickets distributed by inspectors 114
Tickets distributed by nurses 423
Summary work performed during 1905 28

Summer Corps—
Dispensaries of 22
Milk inspections by 22
Nurses in 420, 423
Work performed 22, 114

Supplies—
Books, blanks and stationery 44
Inspection of 40
Purchase of 40
Syrups—Analyses of 438

Tea—
Analyses of 443
Inspection of 279
Ten Years' Experience with Diphtheria Antitoxin 342

Tetanus Serum—
Amount produced 117
Disbursement of 62, 64

Theatres—
Investigation of 14
Rules and regulations concerning 157
Supervision of 156

Trachoma—
Expenditures for 57
Hospital and dispensaries for 285
Instructions by nurses 422
Number of cases treated 285, 286
Operations for 285
Public baths in relation to 286
Re-examination of operated cases 286

Tuberculin—
Amount produced 117
Disbursement of 64

Tuberculosis— PAGE

Borough of Brooklyn..... 290, 315
Borough of The Bronx..... 320
Borough of Manhattan..... 306
Borough of Queens..... 295, 324
Borough of Richmond..... 326
Cases investigated..... 114
Cases reported..... 29
Clinic for..... 19, 328
Comparative weekly table of..... 305
Diagnosis Laboratory..... 337
Exposition 301
Hospital census of..... 310
Location by wards in Manhattan..... 309
Map of cases of..... 311
Nurses in 307
Private cases of..... 311
Specimens of sputa examined..... 28, 115
Statistical summary of cases..... 408
Summary of clinic work..... 414

Typhoid Fever—

Borough of Brooklyn..... 317, 354
Borough of The Bronx..... 320, 354
Borough of Manhattan..... 312, 354
Borough of Queens..... 295, 324, 356
Borough of Richmond..... 327, 356
Card form used in cases of..... 348
Cases of, in Greater City..... 356
Cases reported 29
Circular used in cases of..... 350
Comparative weekly table..... 305
Decrease in death rate..... 9
Diagnosis Laboratory..... 339
Filtration of water in..... 365
Infected food stuffs in..... 364
Infection of water in..... 355, 360, 364
Maps for cases of..... 349
Milk as causation of..... 362
Milk inspection in cases of..... 351
Objections to drinking water theory of..... 362
Outbreak of, checked..... 19

Typhoid Fever— PAGE

Oysters as causation of 364
Physicians' reports of 350
Report of 347
Specimens of blood and urine examined for diagnosis of 29, 115
Statistical summary of cases of 409
Table of cases of 353, 356
Transmission of by direct contact 365
Widal test for 350

Vaccinations—

Borough of Brooklyn 292
Borough of The Bronx 288
Borough of Manhattan 116
Borough of Queens 296
Borough of Richmond 299
For cases exposed to smallpox 284
Influence of in production of immunity 424
Number performed 28, 111

Vaccine Laboratory—

Electric motors in 42
Plans prepared for 44, 423
Report of 423
Work performed in 116

Vaccine Virus—

Accounts of 52
Amount prepared 29, 116
Disbursement of 62, 64, 68
Number of specimens tested 29, 116
Sale and distribution of 52
Vegetables—Inspection of 277
Vegetables (Canned)—Analyses of 450
Vinegar—Analyses of 449
Visiting physicians to hospitals 6
Water Supply—Need of filtration of 27
Westchester Property—New buildings at 25

Whooping Cough—

Borough of Queens 295
Number of cases reported 29, 112

Willard Parker Hospital— PAGE
Administration of anæsthesia at ... 461
Ambulance service at ... 459
Average daily census at ... 57
Care of female patients at ... 461
Construction and repairs ... 41, 467
Daily cost per capita at ... 57
Diphtheria patients at ... 459
Discharge of diphtheria cases at ... 462
Examination on admission to ... 460
Expenditures for ... 57
Intubation cases at ... 460, 462
New buildings at ... 24
Patients treated at ... 130
Recommendations ... 471
Work performed at ... 467, 472
Worcestershire Sauce—Analyses of ... 448

BOARD OF HEALTH.

December 31, 1905.

President,

THOMAS DARLINGTON, M. D.

ALVAH H. DOTY, M. D. . . . . Health Officer of the Port.
WILLIAM McADOO . . . . . Commissioner of Police.

General Medical Officer of the Department,

HERMANN M. BIGGS, M. D.

Secretary,

EUGENE W. SCHEFFER.

Secretaries to the Commissioner,

HAROLD G. MURRAY,
WILLIAM A. CLARK,
JOHN P. HILLY.

HONORARY AND CONSULTING OFFICERS.

CHARLES F. CHANDLER, Ph. D. .	*Consulting Sanitarian.*
CLARENCE C. RICE, M. D	*Consulting Laryngologist.*
GEORGE HENRY FOX	*Consulting Dermatologist.*
ROGER S. TRACY	*Consulting Statistician.*
DANIEL DRAPER, Ph. D.	*Consulting Meteorologist.*
GEO. F. SHRADY, M. D.	*Consulting Surgeon.*
STEVENSON TOWLE	*Consulting Engineer.*
ARTHUR B. DUEL	*Consulting Otologist.*
SIMON FLEXNER, M. D.	*Consulting Pathologist.*
ERNST J. LEDERLE, Ph. D. . . .	*Consulting Sanitarian.*
J. WINTERS BRANNAN, M. D. . .	*Attending Physician to the Hospitals of this Department.*
W. P. NORTHRUP, M. D.	*Attending Physician to the Hospitals of this Department.*
ALBERT T. SWAN, M. D.	*Attending Physician to the Hospitals of this Department.*
JOSEPH E. WINTERS, M. D. . . .	*Attending Physician to the Hospitals of this Department.*
H. W. BERG, M. D.	*Attending Physician to the Hospitals of this Department.*
HENRY D. CHAPIN, M. D.	*Attending Physician to the Hospitals of this Department.*
LOUIS FISHER, M. D.	*Attending Physician to the Hospitals of this Department.*

MEDICAL ADVISORY BOARD TO THE BOARD OF HEALTH.

EDWARD G. JANEWAY, M. D.
JOSEPH D. BRYANT, M. D.
FRANCIS P. KINNICUT, M. D.
RICHARD H. DERBY, M. D.
A. ALEX. SMITH, M. D.
L. EMMETT HOLT, M. D.
WILLIAM M. POLK, M. D.
T. MITCHELL PRUDDEN, M. D.
ABRAHAM JACOBI, M. D.
JOHN WINTERS BRANNAN, M. D.
HENRY P. LOOMIS, M. D.
JOHN A. McCORKLE, M. D.

MEDICAL EXAMINING BOARD.

JOHN HOWLAND, M. D.
J. WINTERS BRANNAN, M. D.
WILLIAM E. STUDDIFORD, M. D.
HENRY W. BERG, M. D.
WILLIAM H. PARK, M. D.
EDWIN J. RICHARDSON, M. D.

VISITING PHYSICIANS TO THE HOSPITALS.

S. A. KNOPF, M. D.
JOHN HOWLAND, M. D.
WILLIAM J. PULLEY, M. D.
MATHIAS NICOLL, JR., M. D.

MEDICAL BOARD OF THE WILLARD PARKER AND RIVERSIDE HOSPITALS.

J. WINTERS BRANNAN, M. D., *President.*
HENRY W. BERG, M. D., *Secretary.*

JOSEPH E. WINTERS, M. D.
ALBERT T. SWAN, M. D.
LOUIS FISHER, M. D.
WM. J. PULLEY, M. D.
MATHIAS NICOLL, JR., M. D.
W. P. NORTHRUP, M. D.
HENRY D. CHAPIN, M. D.
S. A. KNOPF, M. D.
JOHN HOWLAND, M. D.
WM. H. PARK, M. D.

EXECUTIVE OFFICERS.

CHARLES F. ROBERTS, M. D. . .	*Sanitary Superintendent.*
WALTER BENSEL, M. D.	*Asst. Sanitary Superintendent, Manhattan.*
GERALD SHEIL, M. D.	*Asst. Sanitary Superintendent, The Bronx.*
THOMAS F. FOGARTY, M. D. . .	*Asst. Sanitary Superintendent, Brooklyn.*
JOHN P. MOORE, M. D.	*Asst. Sanitary Superintendent, Queens.*
JOHN T. SPRAGUE, M. D.	*Asst. Sanitary Superintendent, Richmond.*
JOHN S. BILLINGS, JR., M. D. . . .	*Chief of Div. of Communicable Diseases.*
WILLIAM H. GUILFOY, M. D. . .	*Registrar of Records.*
ALONZO BLAUVELT, M. D. . . .	*Chief of Division of Contagious Diseases.*
JAMES P. ATKINSON	*Chemist.*
WILLIAM H. PARK, M. D.	*Director, Research Laboratory.*
GEORGE T. STEWART, M. D. . . .	*Superintendent of Hospitals.*
FREDERIC D. BELL	*Chief Clerk.*
ALFRED T. METCALFE	*Asst. Chief Clerk, Brooklyn.*

DEPARTMENT OF HEALTH.

REPORT FOR THE YEAR ENDING DECEMBER 31, 1905.

DEPARTMENT OF HEALTH, CITY OF NEW YORK,
BOARD OF HEALTH.
December 31, 1905.

Hon. GEORGE B. MCCLELLAN, *Mayor, City of New York:*

SIR—In accordance with the provisions of section 1168 of the Greater New York Charter, we respectfully submit the report of all the operations of the Department of Health of the City of New York, during the year ending December 31, 1905.

The health of the City during 1905 has been excellent; 73,714 deaths were reported, a decrease of 4,346 from the previous year. The death-rate was 18.32—next to the lowest rate since the formation of the Greater City. In 1866, the year in which the Board of Health was organized, the death-rate was 34.92; in 1905 in Manhattan and the Bronx, the two Boroughs which composed the old City of New York, the rate was 18.91. In these Boroughs, therefore, the rate is almost 46 per cent. lower than that of 1866.

All the infectious diseases, with the exception of whooping cough and cerebro-spinal meningitis, show a decrease in the rate from that of 1904. The most marked decreases were in the rates from malaria, scarlet fever, measles, diphtheria and pneumonia. The decreases were not confined to the infectious diseases, but extended throughout almost the entire list of diseases. They occurred at all ages of life, but the principal decreases were between the ages of 25 and 45, the ages at which life is considered most valuable to the State.

There has been a considerable decrease in the death-rate from typhoid fever. In 1905, this death-rate was 16.12 as compared with 16.94 in 1904 per one hundred thousand of the population. This rate

is considerably lower than that of most of the large cities of Europe and the United States.

In 1905, there have been 375 fewer deaths from measles than during the previous year. As a natural sequence, the deaths from bronchopneumonia and acute bronchitis have also been considerably diminished. This decrease can be very justly attributed, in part, at least, to the very careful isolation of the cases of measles, and to the work of the School Inspectors in the classrooms.

In scarlet fever there has been a decrease of 378 deaths in 1905 as compared with 1904. The death-rate for the past ten years from scarlet fever has been 2.41 per 10,000 of the population, while that of the ten years from 1875 to 1884 was 9.15 per 10,000 of the population. If the death-rate of this decade were applied to the old City of New York in 1905, it would have given us a total of 2,187 deaths. There have been 1,544 deaths from diphtheria during the year, a decrease of 540 as compared with 1904, the death-rate per 100,000 being 38.4. The rate per 100,000 during 1875 to 1884 was 176; in 1885 to 1890 it was 152; and from 1895 to 1904, 67; and in 1905, 38. The decrease in the death-rate from this disease is attributed mainly to a more extensive use of diphtheria antitoxin by the physicians of the City.

The death-rate from pulmonary tuberculosis for the year 1905 was substantially the same as for the year 1904.

In 1905, 622 more deaths from cerebro-spinal meningitis occurred than in the previous year. During this year, a Commission was appointed for the study of this disease, with the hope that valuable information would be obtained to enable the Department to deal in an effective way with this disease. The work of the Commission is not yet complete, but much valuable information has already been obtained, and a system of quarantine has already been established as a result.

The death-rate from diarrhoeal diseases for 1905 is essentially the same as during 1904. In 1881, the death-rate from diarrhoeal diseases was 3.61 per 1,000. From that time on it has gradually fallen to the comparatively low rate of 1.65 for 1905.

During the year 1905, a new section of the Sanitary Code was added which limited the sale of carbolic acid in a stronger solution than 5 per cent. In 1904, there were 357 deaths attribued to carbolic acid

poisoning; in 1905, only 114 deaths were recorded attributed to this cause. Whether there was any real saving of life or not is purely speculative, but certainly there was a very material diminishment in the deaths from this particular cause.

Sanitary Bureau.

A great deal of the work of the Sanitary Bureau is, of necessity, routine in nature. The volume and increase of the work of the Department is indicated by comparing the total number of inspections as given below:

1903	1,374,886
1904	1,595,244
1905	2,011,519

A very considerable part of this work was initiated by inspectors of the Department and not taken up on complaint.

The work of the Sanitary Police has been especially effective. The number of arrests which occurred during the year were 3,734 This result does not fairly indicate the value of the Sanitary Police, inasmuch as the majority of nuisances complained of are abated through their individual efforts. Permits, for instance, to collect and transport refuse materials are given by this Department. Patrolmen are detailed to patrol the streets and enforce the conditions of the permits. As a result, such materials as manure, fat and bones, garbage, swill and grease, are collected and removed with as much expedition as possible, and in as inoffensive a manner as the nature of these substances will permit.

The following is a list of causes for the issuance of orders showing, in part, the variety and character of the work accomplished:

Air-shafts cleaned.

Alleys cleaned, disinfected, graded, paved, connected with sewer.

Apartments cleaned, disinfected or ventilated.

Areas connected with sewers, cleaned, disinfected, pavements of, graded and repaired.

Balusters of stairs repaired.

Basements cleaned and disinfected.

Business of lard-rendering, slaughtering, gut-cleaning, fat-rendering, storing bones, manufacturing fertilizers, smoking sausages or storing rags discontinued.

Buildings cleaned or enclosed.

Ceilings cleaned, whitewashed or repaired.

Cellars cleaned, etc.

Cellars vacated as places of living or sleeping.

Cesspools disinfected, etc.

Cisterns disinfected.

Coops cleaned, disinfected or removed.

Cows removed.

Dogs removed.

Drains cleaned, etc.

Excavations cleaned, repaired, relaid, graded, or connected with sewer.

Fences repaired or constructed.

Fire-escapes cleaned or obstructions removed.

Fixtures trapped and waste-pipes therefrom connected on outlet side of water-closet traps.

Flashings provided over woodwork or sinks.

Floors cleaned, repaired, relaid, graded, cemented or connected with sewer.

Fowls removed.

Gas mains and pipes repaired and gas provided in dark halls and rooms.

Garbage and ash receptacles provided, removed, cleaned and disinfected.

Gutters (house or street) provided, repaired, cleaned, disinfected, obstructions in removed, connected with street sewer, street gutter or cesspool.

Halls cleaned and filthy or defective floor coverings removed.

House drains provided with running traps and fresh-air inlets.

Hydrants repaired, constructed or removed.

Ice-boxes connected with properly trapped, water supplied, open sinks.

Leaders repaired, provided, extended, adjusted, connected with sewer, street, gutter or privy vault.

Lots (vacant) cleaned, disinfected, inclosed, filled, graded, connected with sewer or street gutter.

Manure vaults, boxes or receptacles disinfected, emptied, cleaned, covered, filled, constructed or lined.

Offensive trades and business discontinued or removed.

Pigeons removed.

Pipe (soil, supply, vent, waste, sewer or iron) provided.

Pipe (soil, waste or supply) repaired, trapped, removed, extended, graded, cemented, ventilated or repaired, and openings closed and obstructions removed.

Privy vaults disinfected, emptied, cleaned, ventilated, lined with brick, repaired, cemented, constructed, filled or removed.

Privy-houses cleaned, disinfected, repaired, constructed, removed, adjusted to vaults, or seats of provided with cover.

Roofs repaired or cleaned, and roof bulkheads repaired.

Roof tanks provided, cleaned or covered.

School sinks provided, cleaned or repaired.

Sewer pipes provided, repaired, obstruction in removed, trapped or openings inclosed.

Sinks provided, repaired, cleaned, removed, flushed, connected with street sewer or street gutters.

Skylights repaired and provided.

Slaughter houses cleaned, repaired or connected with sewer.

Smoke-pipes extended or repaired.

Soil-pipes discontinued as rail leaders.

Spaces cleaned, disinfected, graded, cemented, filled or connected with sewer.

Stables cleaned, removed, repaired or connected with street sewer.

Stagnant water removed.

Stairways cleaned or repaired.

Urinals cleaned, disinfected, repaired, flushed, connected with sewer, removed, or floor covered with zinc.

Walls cleaned, whitewashed or repaired.

Wash-roofs repaired.

Wash-trays trapped, provided.

Water-closets repaired, cleaned, disinfected, flushed, constructed, ventilated or connected with street sewer.

Water-closets pans adjusted to preserve water seal, bowls burnt out and retarred, cisterns provided, window-sashes repaired and glazed.

Yards cleaned, disinfected, filled, graded, paved, grade of pavements repaired, relaid in cement or connected with street sewer.

Lodging-houses.

The Charter of the Greater City of New York requires that the Department of Health shall inspect all lodging-houses at least twice each year. These buildings are occupied by the lowest classes of the City, and require the utmost care by the Department of Health to be maintained in a proper sanitary condition. There are about 140 lodging-houses in The City of New York.

During 1905 certain very extensive public improvements have been in progress. These works have been productive of many com-

plaints, chiefly against the noises of machinery (more especially at night), smoke discharged from stationary engines and locomotives, and leakage of water and sewage from broken sewer pipes, water pipes, and abandoned house connections. It has been found that almost invariably contractors engaged in these maters have been more than willing to meet the Department half way, and to remedy any unsanitary conditions within a reasonable time.

Slaughter-houses.

Much work has been done in maintaining the slaughter-houses in various parts of the City in a clean and inoffensive condition, and constant efforts have been made to prevent the sale of unfit meat. Some idea of the magnitude of this work may be gained from the fact that during the year, in the Borough of Manhattan alone, 410,716 cattle, 1,391,393 sheep, 245,201 calves, 1,033,441 hogs—a total of 3,080,751 animals—have been slaughtered. The by-products of these slaughter-houses, consisting of blood, fertilizer and fat, would be productive of an enormous number of nuisances without the utmost care on the part of the Department in regulating trade.

Barren Island.

Barren Island, where the disposal of offal and dead animals is carried on, has been kept in as clean and sanitary condition as possible.

During the year 1905 there have been 151,497 dead animals removed to the Island. There have very few complaints relative to Barren Island during the year.

Brooklyn Theatres.

During the year, the Brooklyn theatres were investigated, and were forced to maintain conditions of reasonable safety. It is an acknowledged fact by persons versed in theatre construction that the safety of a theatre depends largely upon three factors—first, a complete separation of the audience from the stage by means of a properly constructed proscenium wall with fireproof curtain and fireproof doors, and the necessary openings; secondly, on a provision being made for properly

constructed, automatically working skylights, for the production of a draught and the carrying off of the products of combustion in the case of a stage fire; thirdly, ample, properly arranged, unobstructed exits for the use of the audience. It is worthy of note that these three things were found lacking in most of the Brooklyn theatres, but at the present time the condition of all of them may be said to be reasonably safe.

Inspection of Foods.

The efficiency of the Department is effectively shown in the totals of the fruit, food and meat condemned as unfit for consumption and destroyed, since it far surpasses that of preceding years. Nearly 9,000,000 pounds of fruit, nearly 4,000,000 pounds of miscellaneous food stuffs, 1,200,000 pounds of meat, and 385,000 pounds of fish have been condemned and destroyed.

Certain Important Decisions.

Special mention should be made of prosecutions for the violation of the Sanitary Code by the use of bob veal. Quantities of it were seized while in the possession of retail dealers, and upon their affidavit, the wholesale dealers were arrested, tried and convicted. Heavy fines were imposed in consequence by the Court of Special Sessions.

The aggressive stand which the Department has taken in punishing violations of the Sanitary Code is shown by the large amount of fines imposed by the Magistrates' Court and the Court of Special Sessions, which this year reached the sum of over $5,000 in excess of any previous year. These fines, which were in the main imposed for the adulteration of milk, aggregated $22,426 as against $16,619 in 1904.

During the year there were also three sentences of imprisonment for milk adulteration.

An important decision of the Appellate Division of the Supreme Court was rendered May 14, 1904. An action had been brought to recover a penalty against the defendant, a physician, for the alleged failure to report the birth of a child. His defense was that he mailed the certificate. The fact was brought out that the certificate had not reached the Department. The appeal was decided by a divided Court in favor of the physician. By reason of this decision a bill was introduced and

passed by the Legislature during the year 1905 providing briefly that a physician is obliged to see that a certificate is filed with the Department and assumes the risk of sending a certificate through the mails.

Another important piece of legislation which occurred during the year was an act making it unlawful to maintain a bathing establishment within 500 feet of a sewer.

Pension Fund.

There were 2,925 searches and transcripts of births, marriages and deaths made during the year. The income from this work amounted to $19,673.79. This, together with the amount accruing from fees and penalties, and the interest on money deposited, made the total receipts for the year $50,172.76, making the Pension Fund at the close of the year 1905 $205,121.63, exclusive of disbursements. The total disbursements for the year were $18,305.06, leaving a net increase over the year 1904 of $31,867.70. Seven new pensions were granted during the year and five who were on the roll died, making a total of 32 now on the roll.

The Department Drug Store.

During the year 1905 97,806 prescriptions were filled. In addition, 221,888 tablets and pills were furnished, together with a miscellaneous lot of hospital supplies. Aside from the tremendous saving incidental to maintaining our own drug store is the knowledge that the drugs dispensed are pure.

Hospital Storehouses.

A storehouse was inaugurated at Riverside Hospital on April 4, 1905. It has demonstrated its value because there has been a more intelligent and economical administration of supplies at that institution since its adoption. This system having proven successful at Riverside, steps are already being taken to establish such a storehouse at Kingston Avenue Hospital, the Otisville Sanatorium and the Willard Parker Hospital.

Antitoxin.

A most important advance has been made during the year in the preparation of antitoxin by this Department. Through this method,

concentration of antitoxin from serums of low therapeutic value has been made possible. As a result the Department is able to manufacture, at less expense and in larger quantities, diphtheria antitoxin of high grade. This system has been thoroughly tested in the hospitals of the Department, and has now been placed in the various antitoxin stations for the use of the public. This method has also been adopted by the various antitoxin manufacturers, with the result that a more powerful serum can be sold at a very much lower rate.

Rabies.

A new and improved method for the rapid diagnosis of rabies has been developed and is now being used in the Department laboratories.

Work of Chemical Laboratory.

Nine thousand nine hundred and fifty-one (9,951) analyses were made in the Chemical Laboratory for 1905, nearly double that of any previous year. The bulk of this work has been to determine injurious substances in foods, the identification of drugs, and the initial work in food adulteration. Much work has been done in the laboratory for other Departments, and for various medical societies. The Police Department, for instance, in a large measure depends upon this laboratory for their analyses. In addition, many samples of water were examined from public and private supplies, including wells, ponds and cisterns furnishing water to outlying districts.

Guarding the City's Milk.

When we consider that a large proportion of deaths from diarrheal diseases occur with children and that milk is the natural food of children up to at least five years of age, and further that milk, if neglected and not subjected to supervision in its production and handling, is naturally a deleterious food, we realize the importance of stringent efforts to maintain its purity and wholesomeness. During many previous years the Department's efforts have been limited to the prevention of the sale of adulterated milk, that is, milk which did not conform chemically to the legal standards. During the last two or three years the efforts of the Department have been extended to the production of clean milk.

The milk supply of the City of New York is about 1,500,000 quarts a day. For the supervision of this enormous food supply only fifteen inspectors are employed by the City. In spite of the small number of this corps, the milk has been well guarded; inspections have been made of nearly all the creameries shipping milk to the City, and in many instances these places were found in a very unsanitary condition. These unsanitary conditions have been, in a large part, corrected. There remain, however, some forty or fifty thousand farmers whose places, on account of the small number of our inspectors, are practically as yet unvisited. This work belongs to the State, but if the City deems it wise to employ an adequate number of men to maintain conditions of cleanliness in these farms and dairies, there can be no question that the death-rate from diarrheal diseases will be enormously reduced.

The work of guarding the City's milk supply was greatly strengthened, when, on December 11, 1905, the Supreme Court of the United States decided that the Board of Health had absolute power to regulate the sale of milk by requiring a permit as a condition to engaging in its sale. A permit is issued upon conditions intended to safeguard the purity of the milk, and to secure proper sanitary surroundings where it is sold. The significance of this decision is that the Board may revoke any permit for the sale of milk where there is a violation of the reasonable conditions prescribed for the granting of the same.

Reporting of Contagious Diseases.

It is of some interest to state that the reports of physicians relative to contagious diseases have been far more complete during the present year, and have been made with far greater uniformity than in previous years. This has been due in some measure to the activity of the Department in demanding the observance of the Sanitary Code in this particular, and the heartier co-operation of the physicians in the City, who are more and more awakening to the value to the public health of the City in the performance of these duties.

Improved Method of Fumigation.

During the past year fumigations have been performed with formaldehyde. This exclusive use of formaldehyde in fumigation has done

away with the disagreeable, dangerous and destructive effects of sulphur, which was used formerly. As a matter of fact, there have been comparatively few complaints during the year from citizens whose homes were fumigated, and extremely few claims for the destruction of fabrics from the use of disinfectants in fumigation.

The Clinic.

The working of the Clinic for the treatment of tuberculosis, founded in 1904, has been increasingly satisfactory. Over 9,000 more patients were treated during 1905 than during 1904. The importance of special extra diet in pulmonary tuberculosis being recognized, an arrangement was made with the New York Diet Kitchen Association for the free distribution of milk and eggs. As to the necessity for such extra diet, regardless of its value as a medical measure, it is interesting to state that over 50 per cent. of the patients visited by Department nurses were found to have insufficient food. It has proven invaluable in the tuberculosis work. This distribution has been extended to Brooklyn, where the milk and eggs are given out by the Bureau of Charities.

The constant existence of a long waiting list of applicants for treatment at the Riverside Tuberculosis Sanatarium illustrates the necessity for the opening of the Otisville Sanatorium.

Outbreak of Typhoid Checked.

There was an outbreak of typhoid fever of moderate degree in the Borough of Brooklyn during the late summer of 1905, due to the unsanitary conditions obtained in that Borough. Vigorous measures were instituted and the outbreak was speedily checked.

Child Labor Law.

Early in 1905, the Labor Law providing for the issuance of mercantile certificates to children between the ages of fourteen and sixteen was made the subject of a very important amendment. Prior to this time the Department of Health was not permitted to issue a certificate until the children had provided certain definitely mentioned proofs of age. A very large number of instances were found where such definite proofs mentioned in the law could not be provided, although the children were

manifestly of the proper age and of the proper physical development to perform the work which they desired to perform. This amendment provided that the Board might, in its discretion, accept other evidence than that mentioned specially in the previous law, when such evidence appeared to be unequivocal evidence of age. This amendment has resulted in a great improvement in the issuance of certificates and general administration of the law, and has reduced to a very large extent the very just criticisms of the previous law.

Medical School Inspection.

In September, 1902, a new method of medical school inspection was inaugurated, to the extent of extending the jurisdiction of the school inspection to the class rooms, and individual examination of pupils in their classes. As at first organized, this work resulted in the exclusion of a very large number of children for minor contagious diseases. At the present time the work has been so elaborated as to include the services of nurses in the schools, and many cases which were formerly excluded have been enabled to remain in school.

The following table shows the decrease in the number of exclusions under this system:

	1903.	1904.	1905.
Number of children excluded.....	65,294	25,369	18,844
Reasons for exclusion—			
Measles	250	1,172	312
Diphtheria	530	155	74
Scarlet fever	66	55	47
Whooping cough	364	187	351
Contagious eye diseases.....	32,525	10,624	8,833
Pediculosis	21,100	8,717	4,692
Chicken pox	909	780	937
Contagious skin diseases.....	4,029	2,123	2,018
Miscellaneous	5,521	1,556	1,580

On March 27, 1905, the Department broadened the scope of this work and instituted a plan of great importance. While abating in no degree the systematic oversight and control of the infectious and contagious diseases, the work has been so arranged that the nurses now make the routine weekly inspection of the children in their classrooms, thus leaving the physicians time to enable them to make complete physical examinations of the children. Each child is thoroughly examined. The eyes are tested for defects of vision, headache, squint, blurring, etc.; the ears for deformity of the external canal, discharges and defects in hearing. The teeth and hard palate are inspected. An examination is made for adenoids, growths, and the nasal condition is noted. A general record is made of the nutrition of the child, the glands, choreic symptoms, cardiac and pulmonary diseases, mentality, skin lesions, and for deformities of the spine, chest or extremities. A complete record is kept of the physical condition of each child, and in every instance where any abnormality is discovered a notice to that effect is sent to the parents with the suggestion that the child be immediately placed under medical care. If the case is persistently neglected, a nurse visits the family and urges treatment.

The necessity of thoroughness in this work, coupled with a limited number of inspectors and a large number of children, makes its progress comparatively slow. Enough has been accomplished, however, to show its great economic value to the community as well as to the individual. The fact that practically none of the abnormal conditions found, either had or were likely to receive treatment until the facts were thus forcibly brought to the attention of the parents, more than emphasizes the value of this work. The following table shows the work accomplished from March 27 to December 31, 1905:

Table of the Physical Record of Children.

Total number of children examined	55,332
Number of cases of bad nutrition	3,283
Number of cases of diseased anterior cervical glands	14,214
Number of cases of diseased posterior cervical glands	3,047
Number of cases of chorea	738
Number of cases of cardiac disease	895
Number of cases of pulmonary disease	600

Number of cases of skin disease	989
Number of cases of deformity of spine	485
Number of cases of deformity of chest	401
Number of cases of deformity of extremities	498
Number of cases of defective vision	16,394
Number of cases of defective hearing	1,296
Number of cases of nasal breathing	6,182
Number of cases of defective teeth	18,182
Number of cases of defective palate	698
Number of cases of hypertrophied tonsils	8,347
Number of cases of posterior nasal growths	5,119
Number of cases of defective mentality	1,210
Number of cases where treatment was necessary	33,551

Summer Corps.

The duties of the Summer Corps have been modeled on the same lines as during the preceding two years. The keynote of this work is the prevention of diarrheal diseases of children, and with this point in view the physicians and nurses of the Corps systematically visited the tenement houses and interviewed the mother of each child under one year of age. Detailed printed instructions were given in regard to the proper preparation of milk, time and methods of feeding, general hygiene and care of the baby.

As in past years the Department has had the co-operation of the Nathan Strauss Milk Depots, the Herald Free Ice Fund, and the St. John's Guild. All sick children found were treated by the doctors, and all the mothers were instructed to send or telephone to the Department for a doctor whenever a child showed any signs of illness. Dispensaries were maintained on the Recreation Piers, each in charge of a physician. The inspection of milk sold in the small shops in the tenement districts were also a part of the work of this Corps. The efforts of the Corps in the prevention of diarrheal diseases has resulted in a marked improvement in the general care given to the babies visited, and has undoubtedly had a great influence in the reduction of the death-rate in infants from gastro-intestinal diseases. The following table shows in some measure the work accomplished during the summer of 1905:

Number of visits to tenements	60,027
Number of miscellaneous visits	8,130

Number of families visited	289,114
Number of children examined at pier for St. John's Guild	25,261
Number of sick treated	1,985
Number of other physicians' patients treated	1,551
Number of revisits	1,172
Number of milk inspections	9,740
Number of original complaints forwarded	220
Number of circulars and hangers distributed	100,283
Number of ice tickets distributed	456
Number of milk tickets distributed	3,750
Number of St. John's Guild tickets distributed	4,909
Number of sunstroke circulars distributed	2,493

Nursing.

The staff of nurses was increased during 1905 from 33 to 50, thus affording an opportunity of extending their duties. A larger number of schools now have the advantage of a school nurse, and the weekly routine inspection of the children has been put in their care.

An important part of the work of the nurses during the past year has been to visit at their homes those children who have been advised to receive treatment for some physical abnormality. The nurses not only urge the necessity of treatment, but often take the child to a physician or dispensary.

During the year the work accomplished was as follows:

Number of visits to schools	25,943
Number of visits to tenement houses	40,070
Number of miscellaneous visits	67,357
Number of cases treated—	
Pediculosis	616,384
Contagious eye disease	268,855
Contagious skin disease	40,052
Miscellaneous diseases	50,801

Mosquito Extermination Work Begun.

The work of draining the Staten Island marsh lands was begun during the month of November on the east or bay side of the Island at a point known as South Beach, and a large amount of work has already been accomplished in a satisfactory and permanent manner.

Building Operations.

Following out the comprehensive plan which the Department has undertaken in regard to the various hospital plants under its control, a number of new buildings are in process of construction, and several of the old buildings have been remodeled.

It is the policy of the Department to replace the frame structures which have existed for a number of years—relics of the "pest house" idea of former days—and which are wholly inadequate for the present needs of the Department, with modern hospital structures.

During the year 1905 the building operations in the various hospital plants have been quite extensive. Much work has been done on new buildings, and elaborate repairs have been made on the old ones.

The following is a list of all the more important items according to Boroughs:

Borough of Manhattan.

Willard Parker Hospital Plant, Foot of East Sixteenth Street.

New Buildings—

Scarlet Fever Pavilion, nearly finished.
Administration Building, nearly finished.
Coal house, in process of building.
Laboratory, completed and occupied.

Alterations—

Willard Parker Hospital Annex, converted into a temporary boiler-house.
Diphtheria Pavilion, remodeled and enlarged.

Plans Prepared—

The acquisition of additional land adjoining the present Hospital.
Fences.
Improvement of walks and driveways.
Moving of animal house.
Construction of male dormitory.
New kitchen and old boiler-house.

Reception Hospital.

Completed—

New waiting-room.
Covered passageways.
Canopies.
Iron fences.
Enclosure.

Gouverneur Slip Eye Dispensary.

New portable building finished.

BOROUGH OF THE BRONX.

Riverside Hospital.

Two isolation buildings, nearly finished.
New gas house.
Morgue building, finished.
Tent house, finished.
Summer house, finished.
Plans Prepared—
- Tuberculosis Pavilion.
- Dormitory for domestics.
- Extension of Nurses' Home.
- Erection of Measles Pavilion.
- Isolation Ward Building.
- Green-house.
- New Administration Building.
- Storage building.
- System of piping.
- Sea wall.
- Extension and enlarging of the Island by filling in.

Bronx Office.

Plans Prepared—
- Office changes.
- Tuberculosis Clinic.

Westchester Property.

Vaccine Laboratory and three additional buildings in connection therewith.

BOROUGH OF BROOKLYN.

Kingston Avenue Hospital.

Stable building, not finished.
Pipe gallery, not finished.
Grading of grounds.
Scarlet Fever Pavilion, completed.
Nurses' Home, completed.
Laboratory, completed.
Coal storage building, completed.
Ice manufacturing plant, completed.
Crematory, completed.

Plans Prepared—
Storehouse.
Measles Pavilion.
Morgue.
Four isolation ward buildings.
Extension of Nurses' Home.

Brooklyn Office Building.

Site selected.
Plans accepted.

STEAMBOAT "RIVERSIDE."

This Hospital Boat which is nearly complete will be used for persons sick with contagious disease. She has a steel hull and two decks, the wards for patients being on the main deck and the rooms for convalescents, nurses and physicians being built on the upper deck.

OTISVILLE.

Several attempts were made during the years 1904 and 1905 to acquire property for the establishment of a sanitarium to complete the chain of work already begun for the care and treatment of persons resident in the City of New York afflicted with pulmonary tuberculosis.

Clinics have already been organized and a hospital for advanced cases established at Riverside Hospital. It became more and more evident that the special need of the Department was a large tract of land to construct a sanitarium for incipient cases. This was felt to be merely an advanced step in the fight against tuberculosis which the Department had begun years ago.

In order to obtain this tract of land it was necessary to secure the consent not only of the Town Board, but also of the Board of Supervisors of the County in which it was proposed to establish a sanitarium. All these preliminary efforts failed, owing to the inability to obtain the necessary consents. At every attempt to secure a piece of property, hysterical protests were made. More than five hours were consumed at one hearing.

Fortunately, in the spring of 1905, the consent of the Town Board of Mt. Hope in Orange County was secured. A month later, notwithstanding the most vigorous protests on the part of many people within

the County, the Supervisors sustained the action of the Town Board. In all this work it is unnecessary to detail the vast amount of personal labor involved.

The land, which is not as yet fully acquired by the City, is universally commended as ideal for the purposes of a sanitarium. It is within three hours ride of the City and has an elevation of from 850 to 1,400 feet above sea level. The buildings may be so constructed as to get a southern exposure in the winter and shelter from the winds.

Unless unforeseen difficulties arise we will be able to erect temporary structures and to receive patients early in the summer.

As this property is well adapted for dairy purposes we propose to establish a model farm in order to supply patients with fresh milk, butter, eggs, green vegetables and other farm products. Later it may be possible to furnish the other hospitals controlled by the Department with these supplies.

The Need of a Central Office Building.

There is grave need of taking the first steps looking toward the construction of a central office building, since the lease of the present building will expire May 1, 1909. The Department occupies in its present quarters about 50,000 square feet of floor space. It should provide for at least 100,000 square feet of floor space if the actual needs of the future are to be met.

The Board is strongly of the opinion that this building should be an independent structure, used solely for the Department of Health, particularly as cases of contagious disease come to the Department in spite of anything which we can do.

A special report was made to your Honor on July 25, 1905, on the Filtration of the Water Supply. We desire to respectfully call to your attention again at this time the fact that the proper conservation of public health demands that filtered water only should be served to communities. It is of vital importance to New York City to establish filtration plants as the only possible guarantee of pure water, inasmuch as

the sources of the present supply and the new supplies are largely outside of the jurisdiction of the City of New York.

Respectfully submitted,

THOMAS DARLINGTON,
President.

ALVAH H. DOTY,
Health Officer of the Port.

THEODORE A. BINGHAM,
Police Commissioner.

EUGENE W. SCHEFFER,
Secretary.

ADDENDA.

Summary of the Work Performed during the Year 1905.

Total number of inspections	2,011,519
Number of citizens' complaints received	34,017
Number of arrests made	3,734
Number of persons held on bail	1,637
Number of persons discharged	410
Number of glandered horses destroyed	1,039
Number of inspections of mercantile establishments	29,649
Number of specimens of milk examined	119,751
Number of specimens of milk collected for analysis	6,418
Number of quarts of adulterated milk destroyed	40,196
Number of milk inspections	104,794
Number of pounds of fruit condemned and destroyed	8,945,375
Number of pounds of food condemned and destroyed	3,905,662
Number of pounds of meat condemned and destroyed	1,241,255
Number of pounds of fish condemned and destroyed	385,699
Number of fruit and food inspections	767,720
Total number of vaccinations	153,537
Number of persons removed to hospital	4,817
Number of houses visited for disinfection	41,136
Number of infected rooms disinfected	63,668
Number of pieces of infected goods disinfected	89,817
Number of pieces of infected goods destroyed	21,772
Number of bacteriological diagnosis of suspected diphtheria	21,580
Number of bacteriological examinations of sputum, suspected tuberculosis	18,639

Number of specimens of blood examined for typhoid fever reaction (Widal test)	5,754
Number of specimens of urine examined for typhoid fever reaction (Diazo)	1,082
Number of c. c. of vaccine virus prepared	13,076
Number of capillary tubes of vaccine virus prepared	113,050
Number of specimens of vaccine virus tested bacteriologically	1,082
Number of chemical analysis	9,951
Number of c. c. antitoxic serum prepared (Pathologist)	439,590
Number of c. c. of tuberculin produced	815
Number of inoculations of animals with toxins for development of antitoxic substances	151

Number of Cases of the Following Contagious Diseases Reported during the Year 1905:

Diphtheria and croup	13,686
Scarlet fever	8,071
Measles	19,026
Tuberculosis	20,831
Typhoid fever	4,326
Parotiditis	1,319
Cerebro-spinal meningitis	2,755
Chickenpox	5,473
Whooping cough	2,637
Smallpox (Including quar. cases)	50
Erysipelas	593
Total	78,767

DEPARTMENT OF HEALTH, CITY OF NEW YORK,
SOUTHWEST CORNER 55TH STREET AND SIXTH AVENUE,
BOROUGH OF MANHATTAN.
NEW YORK, December 31, 1905.

The Board of Health, City of New York:

SIRS—I have the honor to submit herewith the report of work performed in the office of Secretary of the Department of Health during the year 1905.

Respectfully,

EUGENE W. SCHEFFER,
Secretary.

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE CHIEF CLERK DURING THE YEAR 1905.

FINANCES OF THE DEPARTMENT.

The following appropriations were approved by the Board of Estimate and Apportionment for the support and maintenance of the Department of Health during the year 1905, as follows:

Statement of Appropriations.

Title.	Amount.
Salaries, Board of Health and Executive Officers	$53,557 00
Salaries, Officers, Clerks, Inspectors and other employees	548,815 00
Supplies and Contingencies	44,073 00
Hospital Fund (excluding payments to private hospitals)	147,596 48
Disinfection	63,050 00
Bacteriological Laboratory	63,850 00
Salaries, Medical School Inspection	149,000 00
Abatement of Nuisances	1,600 00
Support of Ambulance Service	24,800 00
Removal of Night Soil, Offal and Dead Animals	87,050 00
Sanitary Police	76,000 00
Total appropriation	$1,259,391 48

tement of Revenue Bond Funds and Corporate Stock Issued During the Year 1905 for the Purposes Specified and to Provide for Necessary Funds Owing to Insufficient Appropriations.

REVENUE BOND FUNDS ISSUED.

Date.	For.	Amount.
n. 13.	Nurses' Salaries	$60,000 00
13.	Antitoxin	12,000 00
pt. 15.	Antitoxin	15,000 00
b. 24.	Trachoma	25,000 00
" 24.	Tuberculosis	10,000 00
ar. 16.	Re-Indexing Department Records	5,000 00
" 16.	Medical Commission (Meningitis)	5,000 00
" 31.	Hospital purposes	42,000 00
" 31.	Disinfection	26,000 00
" 31.	Census	35,000 00
" 31.	Sanitary Police	21,838 08
pr. 7.	Summer Corps	25,000 00
" 28.	Salaries	116,059 80
" 28.	Supplies and Contingencies	7,500 00
une 30.	Mosquito Work	17,000 00
	Total issue of Revenue Bonds	$422,397 88

CORPORATE STOCK.

Date.	For.		Amount.
Feb. 21.	Aldermen ...	Improving Buildings at Riverside, Kingston Avenue and Willard Parker Hospitals.	$98,000 00
" 28.	Mayor		
Apr. 11.	Aldermen ...	Constructing Sea Wall	52,000 00
" 18.	Mayor		
Apr. 4.	Aldermen ...	Department of Health Building Fund	995,000 00
" 10.	Mayor		
July 14.		Tuberculosis Sanatorium and Site	250,000 00
		Total issue of Corporate Stock	$1,395,000 00

Tabulated Statement of Cash Received in the Transaction of the Business of the Department During 1905, Deposited in Banks, and Transmitted to the City Chamberlain or to the Trustees of the Pension Fund, as follows:

1905.	Care of Immigrants.	Antitoxin.	Virus.	To City Chamberlain.	Pension Moneys.	To Trustees Pension Fund.
January	$3,308 00	$2,706 12	$257 92	$6,272 04	$3,619 90	$3,619 90
February	5,406 00	1,795 40	786 80	7,988 20	3,818 60	3,818 60
March	8,814 00	1,814 93	799 97	11,428 90	4,186 30	4,186 30
April	.....	1,920 68	479 51	2,400 19	3,636 90	3,636 90
May	7,932 00	1,950 77	726 67	10,609 44	3,716 40	3,716 40
June	48 00	1,582 71	733 00	2,363 71	7,736 46	7,736 46
July	1,494 00	1,543 32	5,750 12	8,787 44	4,608 10	4,608 10
August	50 00	686 47	51 74	788 21	1,794 30	1,794 30
September	6,304 00	695 42	1,109 23	8,108 65	2,033 80	2,033 80
October	3,822 00	613 59	1,000 36	5,435 95	4,301 60	4,301 60
November	2,728 00	536 49	486 84	3,751 33	4,551 80	4,551 80
December	7,688 00	3,651 58	688 68	12,028 26	6,168 61	6,168 61
Totals	$47,594 00	$19,497 48	$12,870 84	$79,962 32	$50,172 77	$50,172 77

SUMMARY.

Received.		*Disbursed.*	
Care of Immigrants	$47,594 00	To Chamberlain	$79,962 32
Antitoxin	19,497 48	" Trustees Pension Fund	50,172 77
Virus	12,870 84		
Pension	50,172 77		
Total received	$130,135 09	Total disbursed	$130,135 09

ACCOUNTS OF THE DEPARTMENT.

The system of accounting established includes principally the keeping of the following books:

Appropriation Ledger—Showing the various appropriations allowed by the Board of Estimate and Apportionment in the Annual Budget, and such additional sums as may be obtained from the sale of Revenue Bonds and Corporate Stock for the maintenance of the Department;

also, liabilities incurred and forwarded to the Finance Department for payment.

Liability Books—Showing the estimated and actual expense incurred in each transaction, so that the condition of each account may be determined at any time.

Monthly Balance Books—Showing at the termination of each month the financial condition of all Appropriations, Revenue Bond and Corporate Stock accounts.

Pay Roll Ledgers—One for each Borough, recording the name, compensation and time employed for each employee, as indicated by the monthly pay roll.

Segregation Ledger—For statistical information showing amount expended for any class of material or purpose, and the branch of the service incurring the expense.

Record of Burial of Deceased Soldiers—Forwarding to the Department of Finance claims for the burial of deceased honorably discharged veterans.

The above books are not the only books kept in this office, but are specified as those containing a record of the financial transactions of this Department.

Trial balances are made monthly, showing the liabilities and assets of the Department, a copy of which is forwarded each month to His Honor, the Mayor, for his information.

Auditing of Bills.

All bills contracted by this Department are rendered in triplicate, stamped with date of receipt by the Division incurring the expense, and certified to the effect that the articles or services enumerated have been received, examined and found correct, and are for the exclusive use of the Department, one bill being retained in that office for filing, and two returned to the office of the Chief Clerk where they are charged against the proper appropriations, one being filed with the requisition, the other forwarded to the Finance Department for payment, after having been approved by the Board of Health.

Considerable delay in auditing has been caused by the failure of business concerns to promptly forward the necessary triplicate bills

which should accompany the delivery of the goods. Consequently, a new system has been installed for the purpose of tracing all bills received and placing the responsibility for any delay which will greatly facilitate the work of the office.

The number of bills received, audited and forwarded to the Finance Department for payment during the year 1905 was approximately 25,000.

Department Pay Rolls.

The pay rolls of the various Boroughs and hospitals of the Department are prepared monthly, recording the name, residence, designation, compensation and time employed, certified by the proper officials, approved by the Board, charged agaist the appropriate accounts, certified by the Civil Service Commission and forwarded to the Finance Department for payment.

Schedule of the Total Number of Employees in the Service of the Department of Health in the Various Boroughs, on December 31, 1905, with a Statement of their Aggregate Annual Compensation:

Sub-division of Employees.	No.	Amount.	Totals.	
			No.	Amount.
Borough of Manhattan.				
Officers, clerks and other employees	559	$617,688 14		
Hospital service	112	56,094 86	671	$673,783 00
Borough of The Bronx.				
Officers, clerks and other employees	55	56,547 11		
Hospital service	202	84,373 25	257	140,920 36
Borough of Brooklyn.				
Officers, clerks and other employees	154	166,024 85		
Hospital service	164	70,602 96	318	236,627 81
Borough of Queens.				
Officers, clerks and other employees	41	44,326 54	41	44,326 54
Borough of Richmond.				
Officers, clerks and other employees	34	37,665 79	34	37,665 79

SUMMARY.

Designations.	No.	Amount.
Total Officers, Clerks, Employees, etc	843	$922,252 43
Total Hospital Service	478	211,071 07
Grand Total	1,321	$1,133,323 50

PENSION FUND.

The Board of Trustees of the Health Department Pension Fund consists of the members of the Board of Health, one of whom is chosen to be Chairman, and one elected as Secretary, annually. Said Board of Trustees is charged with the duty of receiving, investing, and administering all funds derived from fees for searches and transcripts of Department records, and fines and penalties for violations of the Sanitary Code and Health Laws.

Pensions are granted to employees disabled by reason of performance of duty and to widows or minors of employees who die from disease or injury suffered in the discharge of duties, and for service of a period of twenty years, upon application of such employee.

A report in detail of the condition of said fund is submitted to His Honor, the Mayor, annually, in the month of January.

Report of the Condition of the Health Department Pension Fund for the Year 1905, Showing Receipts and Disbursements during that Period.

RECEIPTS.

Attorney's Cost	$394 50
Searches and Transcripts of Births, Marriages and Deaths	19,673 79
Fees and Penalties	23,182 00
Interest	6,922 47
Total	$50,172 76
Total receipts	$50,172 76
Cash on deposit with Knickerbocker Trust Company, December 31, 1904, drawing 4 per cent., as shown by last Annual Report	154,948 87
Grand Total	$205,121 63

DISBURSEMENTS.

Name.	Date of Retirement.	Pension Period, 1905.	Amount.
William B. Fernhead	Dec., 1903	Jan. 1 to Dec. 31	$1,050 00
Caspar Golderman	Apr., "	"	1,200 00
F. H. Dillingham	May, "	"	1,200 00
John T. Nagle	July, 1895	"	1,200 00
Sarah Terhune	May, 1897	"	300 00
Jacob A. Weil	Mar., 1898	"	850 00
Louis Kraushaar	Aug., "	Jan. 1 to July 4 (died July 4, 1905)	434 44
Ed. J. Gallagher	Sept., "	Jan. 1, to Dec. 31, 1905	750 00
Charles A. Koerber	Oct., "	"	600 00
Frank W. Lester	July, 1899	"	750 00
Helen B. Drain	Aug., 1900	"	300 00
William H. Vermilye	Jan., 1901	"	600 00
George F. Morris	Mar., "	"	900 00
Roger S. Tracy	May, "	"	1,200 00
B. T. Steinsieck	Dec., "	"	300 00
Emmons Clark	" "	Jan. 1 to Aug. 9, 1905 (died Aug. 9, 1905)	730 00
John Schnell	July, 1902	Jan. 1 to Dec. 31, 1905	600 00
Bart. McGowan	" "	Jan. 1 to Dec. 31, 1905	525 00
Robert Hixon	Sept., 1903	Jan. 1 to Dec. 31, 1905	240 00
John A. Jennings	Mar., 1904	"	1,200 00
Susie T. Craig	May, "	Jan. 1 to July 25, 1905 (died July 25, 1905)	288 95
Sarah A. Clarke	July, "	Jan. 1 to Dec. 31, 1905	300 00
Louis C. D'Homergue	Sept., "	Jan. 1 to Jan. 12, 1905 (died Jan. 12, 1905)	20 00
Asa R. Dimock	Oct., "	Jan. 1 to Dec. 31, 1905	900 00
George V. Convery	Dec., "	Jan. 1 to Jan. 7, 1905 (died Jan. 7, 1905)	11 67

Pensions Granted, 1905.

Name.	Date of Retirement.	Pension Period, 1905.	Amount.
Frank Wickman, M. D.	May, 1905	May 1 to Dec. 31, 1905	$800 00
Celia Brown McLaughlin.	July, "	July 1 to Dec. 31, 1905	180 00
Thomas F. Fay	Oct., "	Oct. 1 to Dec. 31, 1905	300 00
Magdalena Walker	" "	Oct. 1 to Dec. 31, 1905	75 00
George F. Shrady, Jr.	Dec., "	Dec. 1 to Dec. 31, 1905	75 00
Julia L. Mahoney	" "	Dec. 1 to Dec. 31, 1905	25 00
Harry E. Bramley	Nov., "	Nov. 1 to Dec. 31, 1905	200 00
Total paid pensions, 1905			$18,105 06
Refunds to clerks of courts, paid in error			200 00
Total disbursements			$18,305 06
Balance, cash on hand in Knickerbocker Trust Company, at 4 per cent			$186,816 57

A report of the Commissioners of Accounts covering an examination and audit of the Pension Fund between January 1, 1902, and May 31, 1905, was received on August 29, 1905, in which attention was called to the fact that the sum of $6,145.00 is being retained by the Sinking Fund Commissioners, having been erroneously remitted to the Comptroller and applied to the payment of interest on the City's debt, instead of having been paid into the Health Department Pension Fund.

Measures are now being taken to secure a refund of this amount from the Sinking Fund Commissioners.

Contracts.

Pursuant to the provisions of Section 419 of the Charter, contracts by public letting are made for work to be performed and supplies to be furnished for the use of this Department, where the supplies and work are of a similar character, and the amount involved exceeds the sum of $1,000.

Contracts were executed for furnishing the following supplies to the various offices, buildings, hospitals, and tuberculosis clinics of the Department during the year 1905:

Supplies.	Amount.
Meat	$36,212 44
Coal (boats)	2,117 50
Forage	8,066 97
Milk (tuberculosis patients)	1,789 34
Butter, cheese, eggs	10,912 73
Bread	3,494 58
Vegetables, fruits	4,616 96
Drugs	15,961 64
Chemicals	3,919 55
Alcohol	4,465 02
Hospital furniture	10,482 26
Groceries	13,811 29
Coal (buildings)	19,282 45
Mineral water	1,170 40
Milk (hospitals)	14,601 57
Fish	1,345 41
Ice	4,317 33
Liquors	1,830 68
Apparatus	3,333 57
Disinfectants	1,293 94
Lighting fixtures	6,086 55
Launch	9,990 00
Automobile	4,000 00
Total	$183,102 18

Wherever the present close system of inspection has developed the necessity for a more specific description of the supplies to be contracted for, the change has been incorporated in the contract form for the succeeding year, and samples of a higher grade purchased to be used as standards when required; thus the quality of the supplies delivered continues to improve annually.

The following contract forms for furnishing supplies during 1906 e prepared and printed for advertisement and award:

ter,	Coal (steamboats	Forage.
ngs, etc.,	Groceries, etc.	Cheese.
k (hospitals)	Eggs.	Chemicals, etc.
ead,	Apparatus, etc.	Milk (ph. patients
nware.	Crockery.	Fish.
neral Waters,	Ice.	Stoneware.
ated ware,	Enameled ware,	Fruits.
iquors,	Vegetables.	Meat.
	Coal (hospitals	

Of the above, crockery, glassware, stoneware, enameled ware, and lated ware, are to be contracted for during the year 1906 through ublic advertisement for the first time, having been purchased heretofore by the issuance of departmental orders. In accordance with this olicy data is now being accumulated for the preparation of Contracts for Dry Goods, Stable Supplies, Lumber, etc., etc., which it is estimated will be advertised and let during the spring of 1906.

Contracts were executed for the removal of night soil, offal, dead animals, etc., for a period of five years ending with 1909 as follows:

Contractor.	Covering Boroughs of	Annual Cost
McKeever & Co.	Brooklyn and Queens.	$[illegible]
M. J. & J. F. White	Manhattan, Bronx and Richmond	$[illegible]

A contract was executed with the William Horne Co. for the erection of a bridge to connect the annex at No. 963 Sixth avenue, Borough of Manhattan, with the main department building located at the southwest corner of 55th street and Sixth avenue, at a cost of $1,873.

An automobile was purchased at a cost of $2,000 from the Electric Vehicle Company for the use of the department to facilitate the making of inspections in the various boroughs of the City.

A contract was also entered into with Joseph Johnson's Sons for the ditching and draining of certain swamp areas in the Borough of Richmond with a view to their elimination as breeding places for mosquitoes at a cost of $14,750.

Contracts for the construction of new buildings, alterations, improvements, etc., at the various hospitals of the department are enumerated in the report under the following classifications: Willard Parker, Reception, Riverside, and Kingston Avenue Hospitals.

Purchase of Supplies.

The increase in the work of this office can be readily seen by the number of requisitions received for the purchase of supplies, etc., for use in the various branches of this Department during the year 1905, which amounted to 4,525, involving an expenditure of $452,176.85 compared with 3,900 for the year 1904, shows a clear gain of 625 requisitions over the previous year.

In purchasing supplies for the use of this Department, requisitions properly certified by the executive officers of the different boroughs as to the necessity therefor, are received in the office of the Chief Clerk, examined, and presented to the President of the Board of Health for approval and authority to incur the expense. Estimates are then obtained from reputable business concerns or manufacturers, if possible, and the order given to the lowest bidder. Should the amount exceed the sum of $1,000 the supplies are purchased by contract, the result of public bidding.

Inspection of Supplies.

During the year 1905, there were 4,525 requisitions received, varying in numbers of items from one to two hundred and twenty-five, on which inspections were made.

Upon receipt of goods at the various institutions, they are held until the same have been inspected and passed by the Inspector before being placed in stock, note being made on tissue copy of the order, for recording in the Office of the Chief Clerk, for the purpose of checking the bills.

Perishable supplies, such as fruits, vegetables, etc., which are furnished on monthly bills on an open requisition, are subject to the same inspection, and are rejected when found necessary.

The Departmental Divisions from which requisitions were received, include the following: Hospitals, laboratories, and offices, in the various boroughs. Requisitions were forwarded as follows:

The Department Building, Fifty-fifth street and Sixth avenue	1,791
The Borough of The Bronx	166
The Borough of Brooklyn	264
The Borough of Queens	160
The Borough of Richmond	125
The Research Laboratory	384
The Vaccine Laboratory	74
The Department Stable, Sixteenth street	71
The Riverside Hospital	624
The Willard Parker Hospital	163
The Reception Hospital	121
The Trachoma Hospital	122
The Kingston Avenue Hospital	460
Total	4,525

The average number of items on each of the above mentioned requisitions (4,525) were approximately, fifty (50), and the number of orders issued were about (5) on each requisition, making a total of 22,625 orders issued, and 226,250 items to be inspected.

The Inspector visits each of the hospitals, laboratories, offices, etc., at least once each week, making thorough inspection of the goods received and rejecting those which do not conform to the Department standards and the specifications set forth when the estimate is requested. The Inspector is often required to visit the different firms which do business with the Department to adjust differences in regard to the quality of goods, etc., in order to pass the bills for payment, also, to obtain samples and prices of goods required at the institutions.

Inspectors of Construction and Repairs.

During the year 1905, the work performed by the three Sanitary Inspectors assigned to this office to supervise construction of new buildings and repairs and alterations to old buildings, was as follows:

At the Willard Parker Hospital, foot of East Sixteenth street, Manhattan, work has been in progress on the following named buildings:

Scarlet Fever Pavilion, Administration Building, Coal Houses, and Temporary Boiler House. Alterations were in progress at the old Reception Hospital Boiler House, and the Willard Parker Hospital (diphtheria building). The former is being converted into a kitchen and the latter has been considerably enlarged for the accommodation of patients by removal of living quarters and the addition of solaria. The Laboratory Building was occupied and one floor altered to accommodate the Chemical Laboratory formerly located in the main office building at Fifty-fifth street and Sixth avenue. A waiting room has been completed at the Reception Hospital Dock. Canopies have been erected, enclosing and protecting the entrances to Reception Hospital wards. A substantial iron fence was erected in front of Reception Hospital giving better protection to buildings and grounds. A covered passageway is now provided from all wards in Reception Hospital to the steamboat landing. The Animal House has been moved to make room for the new coal house now building. The Animal House is being rebuilt in a new location. Considerable repairing has been done during the year at Reception Hospital. Electric motors have been placed in the Vaccine and Ambulance Stables for clipping horses and calves. Plans have been prepared for alterations in the old Research Laboratory for the purpose of providing dormitory quarters for help. Plans are being perfected to place all wiring in underground conduits. This includes electric wiring, fire alarm, telephone, and watchman's time clock wiring. Plans are being prepared for the grading, paving, and lighting of the Hospital grounds. Plans are being prepared for the purpose of providing a general filter plant for the entire water supply of the Hospital. At the Hospital for Contagious Eye Diseases, at One Hundred and Eighteenth street and Pleasant avenue, a new water heater has been installed, chimneys repaired, and considerable renovation done. At the Gouverneur Slip Eye Dispensary an additional portable building was provided and heating facilities installed, thereby providing a comfortable waiting room for patients.

At the Kingston Avenue Hospital, Borough of Brooklyn, the Nurses' Home was completed and occupied. The Scarlet Fever Pavilion was completed and placed in use. The Laboratory on second floor of Disinfecting Building was completed and placed in use. An additional disinfecting chamber was installed. An iron fence was erected on the Albany

avenue and Rutland road frontages of the hospital property. A refrigerating building and ice plant was constructed and placed in use. Work was begun and is in progress on additional stable building and ambulance disinfector. Work is under way on the pipe gallery and grading of grounds. A large section of the grounds was filled in so as to conform to final grades. Trees were planted on the sidewalk and shrubbery on the interior of the grounds. Alterations were made in the Laundry Building, increasing the facilities of the laundry by the addition of floor space, and the placing of a large mangle formerly used at the Reception Hospital, Borough of Manhattan. Plans were prepared for areas adjoining the Laundry Building, new Morgue Building and Store House. A temporary Morgue building was erected, new roofs placed on all frame pavilions and dormitory building. Electric lights were installed in the boiler house and coal house. Work was begun on a porch in front of the Disinfecting Station so as to protect goods, horses and wagons while unloading in stormy weather. The greenhouse was refitted with steam piping and new foundation, and placed in use again. Considerable steam repairs and plumbing repairs and alterations have been made during the year. Plans and specifications have been prepared and contract awarded for the installation of two new water tube boilers which will increase the steam facilities to more than double the present capacity. A new crematory for destroying infected clothing, infected furniture, and infected bedding, has been erected. The crematory has also facilities for destroying garbage. New gas mains were laid surrounding the property, so that now it is possible to supply each building direct from the street where necessary. Plans have been prepared for a new office building in this Borough which, when completed, will provide ample and much needed facilities for the work of the Department.

At Riverside Hospital, Borough of The Bronx, work is under way on two isolation buildings. A new gas house, new morgue building, tent house, and an additional summer house were erected. A dormitory for female help was constructed on the top floor of the Laundry Building. A Solarium and fire-escape were erected on the north end of Pavilion No. 1. The wagon shed adjoining the Store House was enlarged and enclosed. Alterations in the kitchen building and library

building have been made. The dining rooms of kitchen building were enlarged and library building fittings were installed and building made ready for use. A new boiler house has been added to the boiler plant. Much repairing was done in the buildings. A new roof has been placed on the Chapel Building. Additional windows were provided for interior wards in Pavilion No. 8. A number of plans have been prepared for improvements on the Island as follows: Complete topographical and landscape plans, involving filling in and enlargement of the Island. Extending the sea wall. Complete piping plans. Some of the old pipes have been renewed so as to make the heating plant effective for winter use. Plans and specifications for a new large brick pavilion are complete. Plans for new office arrangements in the new building leased for The Bronx Borough office headquarters were made and offices occupied. Plans for a clinic and other alterations to increase the efficiency of the office are now being prepared. Topographical plans were completed for building locations and layout of property in Westchester to be occupied by the Vaccine Laboratory.

In the Borough of Queens a plan was made for a small building and work begun to provide quarters for watchman and office at the Department Farm, Jamaica.

Books, Blanks and Stationery.

The existing system of accounting for Books, Blanks and Stationery used by this Department was found to be inefficient, and in order that a complete and accurate record of the receipts and disbursements be kept, it was found necessary to install a complete new system.

Books, Blanks and Stationery Supplies that were asked for on requisitions to the Board of City Record, were not received for months after the requisitions were forwarded, and after a consultation with the contractors, this fault was remedied and the forms and supplies delivered more promptly.

No record was previously kept of the amount of stationery supplies received or on hand. The store rooms were filled with old forms and supplies that were useless. All the old forms were sent to the Department bookbinder and made into blank pads for use throughout the Department.

The stationery supplies were issued at any time during the day and without requisitions from the Chiefs of the Divisions. This necessitated the Clerk in charge to be constantly issuing supplies, and with this method he found it impossible to find time to properly keep the stock books in which a record should have been kept of all receipts and disbursements. Consequently, notice was sent to the Chief of each Division requesting him to make requisitions for supplies on Mondays and Thursdays only between the hours of nine and twelve, and the requisitions to be signed by the Chief of the Division. A uniform index requisition card was issued to each Division for the purpose as follows:

60 B—1000 1T6, '05, 10,000 (P)

STATIONERY REQUISITION.

Division..... Date.....

To the Chief Clerk

DEPARTMENT OF HEALTH.

Sir:—The following Books, Blanks, Stationery, or stock supplies are required for use in this division, the receipt of which is hereby acknowledged as allowed.

.....

Chief of Division.

Form No.	Quantity	DESCRIPTION	Allowed	
		Supplies Issued On Mondays and Thursdays only, 9 A. M. to 12 M.		

This rule was enforced and all requisitions were promptly filled and filed in card index cabinets for future reference.

The method of preparing and making up the annual requisition for Books, Blanks and Stationery Supplies, is not practical and it is intended that the Clerk in Charge will visit the Borough offices each year at the time of making up the annual requisitions for the purpose of properly instructing the Borough clerks in preparing their sample books and requisitions in order that they may all be made out in a uniform manner.

The annual requisition on the Board of City Record covering printed books, blanks, and lithographed blanks, estimated during 1905 to be required for use during the year 1906, consists of 833 distinct forms requiring the printing of four and one-quarter million blanks as per the following schedule:

Boroughs.	Forms.	Books.	Lithographed Blanks.	Printed Blanks.	Book Pages.	Grand Totals.
Manhattan	375	799	448,000	2,409,942	188,094	3,046,036
Bronx	122	42	35,300	168,775	9,808	213,883
Brooklyn	146	246	169,500	573,275	58,314	801,089
Queens	80	7	15,500	64,740	896	81,136
Richmond	110	33	14,000	62,475	7,950	84,425
Totals	833	1,127	682,300	3,279,207	265,062	4,226,569

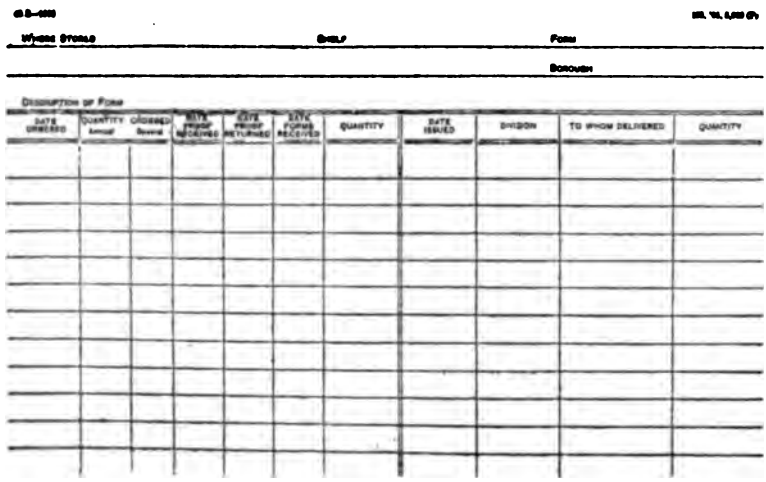
This, however, does not include some 2,443 other forms of blanks, a sufficient quantity of which remained from supplies provided during the previous year, and which probably amount to a total of at least three million blanks additional.

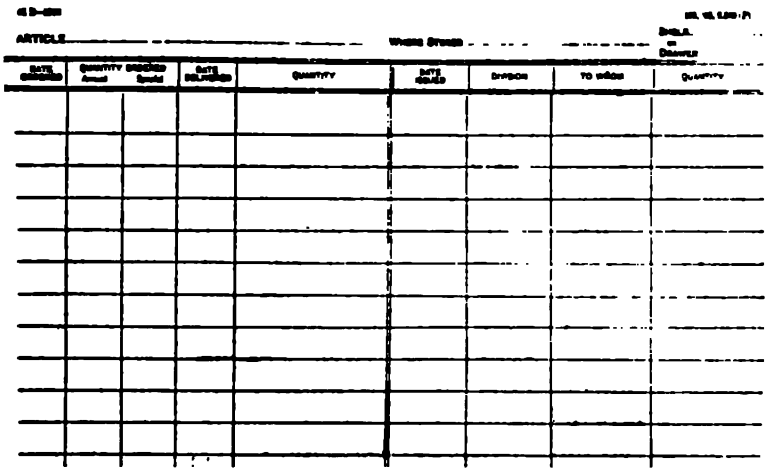
Taking into consideration special requisitions for forms and books required in emergency contracts, etc., which will probably be forwarded during 1906, the number of blanks estimated to be handled during the next year reaches the enormous aggregate of ten millions of blanks, involving approximately some 3,500 separate forms which will be received, stored, and cared for, in the stock rooms of the Department.

In view of the above detail it therefore becomes absolutely necessary that larger store rooms be provided in which these blanks can be properly arranged and stored.

It is suggested that cabinets be built in each of the different Divisions of the Department in which an ample supply of printed forms can be stored for immediate use or emergency and the form numbers marked plainly under the same. These cabinets could be so arranged and divided into compartments to fit each blank and in each of the Borough offices a proper stock room fitted up with shelves, etc., for storing blanks and books.

The new system to be adopted consists of a vertical filing cabinet in which three samples of each of the printed forms used throughout the Department are kept arranged in alphabetical order, between folders that can be used for reference, and in the event of making out emergency requisitions. This is supplemented by a card index cabinet showing on a card the receipt and distribution of each printed form, and of all stationery supplies arranged as follows:





An effort has been made to include on the above card information which would be required under all conditions, so that the system can be maintained with less confusion and labor, and a proper record kept.

In making up the annual requisition with this system in vogue one can tell at a glance just how many forms were used during the year, and how many will be necessary to order the coming year.

Stationery supplies can be ordered in the same way, and the "guessing" habit eliminated. For the first time in the history of the Department under the new system all books and blanks necessary for use in the Department on January 1, 1906, were promptly delivered.

In previous years there was always more or less delay, and at times we were compelled to accept books in an unfinished state in order to properly continue the keeping of such records as were necessary on the first day of January.

Storehouses at Each Hospital.

A storehouse under the supervision of the office of the Chief Clerk with a system of accounts governing the receipt and distribution of supplies at Riverside Hospital was inaugurated on April 1, 1905, and has demonstrated its value by a more intelligent and economical administration of supplies at that institution. An inventory is being taken at the present time which will probably prove that the system has a tendency to stop leakages, waste, and over-stocking.

The following table shows the work performed during the nine months ending December 31, 1905:

Requisitions filled by Storekeeper, 9 months	3,675
Average number of items to each requisition	8
Total number of items (averaged)	29,400
Estimated value of supplies distributed, 9 months	$50,000
Requisitions drawn on headquarters, 9 months	650
Number of articles condemned, 9 months	3,725

The system having been proved practical, a similar one will be installed at the Willard Parker Hospital on completion of the storehouse at that institution now nearly finished, and will also be installed at the Kingston Avenue Hospital, and the Otisville Sanatorium, on the construction of storehouses at the latter institution, plans for a storehouse at Kingston Avenue Hospital having been prepared but not as yet approved, while the one at Willard Parker Hospital is practically completed.

Steps are now being taken to secure suitable quarters in the vicinity of the Department Building to provide a general storehouse, from which supplies in greater quantities may be delivered, inspected, and issued on requisition to the various Departmental Divisions, thus centralizing this branch of the work, and eliminating a vast amount of unnecessary labor.

Should these quarters be secured a more comprehensive system of accounts will be established to the great betterment of economic conditions.

Drug Store Room.

The work in the Drug Store Room has increased very materially during the period covered by this report, so that it has become necessary to request that larger quarters be provided.

During the year 1905, 97,806 prescriptions were filled, of which 39,507 prescriptions were dispensed by the Tuberculosis Clinic, and 58,299 prescriptions were dispensed by Willard Parker, Reception, Trachoma, Contagious Eye Disease, Riverside, and Kingston Avenue Hospitals. In addition to these, there were furnished to the above named Hospitals approximately 1,231 gallons of liquids, 10,811 pounds, and 957 ounces

of powders, cottons, etc., 12,100 yards, 8,974 dozen of rubber goods and miscellaneous quantities of druggists' sundries, etc., and 221,880 tablets and pills; also 274 pounds of spices and 2,926 pounds of mixed teas; the spices were chemically analyzed as to their purity and compared with standards.

The cost of maintaining the Drug Store-room for 1905 was $22,703.29; $19,152.93 of which was expended for supplies and $3,550.36 for labor.

The work can be done much better and more economically when proper quarters have been furnished and machinery supplied which we are unable to use at the present time for lack of space.

Special care has been taken to provide the purest crude drugs and chemicals obtainable and to prepare the various medicines in a careful manner.

One of the chief efforts has been to reduce the drug bills of the Department, and with this in mind, attention has been paid to providing substitutes for the so-called patent medicines which have been in considerable use in this Department before the establishment of the Drug Storeroom. So far we have provided formulas for the so-called patented articles which have been substituted, to the entire satisfaction of the physicians in charge of the hospitals. In fact, several instances have shown that the substituted articles have proven more satisfactory than the patented article formerly used.

Reference has already been made to the crowded condition of the room occupied, which is in the basement of the clinic building and is so cramped that it is with the greatest difficulty that the work can be carried on, notwithstanding the hindrance and losses occasioned by floods which have occurred during the year 1905.

I therefore recommend that new quarters be provided as speedily as possible, and that a practical system of accounts governing the receipt and distribution of all supplies be immediately installed, there being at present no complete system employed.

Sale and Distribution of Department Products, Vaccine Virus, Antitoxin, Etc.

There were in operation on December 31, 1905, 325 stations established in drug stores in the various Boroughs of the City, for the sale and free distribution of the Department products. These stations are visited at intervals by an Inspector from this office for the purpose of ascertaining if the station is conducted according to the conditions of a written agreement made at the time the station is established, and to collect money and free slips received in the distribution or sale of the products. The supply on hand is carefully examined and new stock substituted for the old when necessary.

Antitoxin and Virus Accounts.

Table Showing Receipt and Distribution of Vaccine Virus Received from the Vaccine Laboratory during the Year 1905:

Value of vaccine virus received	$33,163 65
Distributed free	17,302 89
Returned to Laboratory on deterioration	3,449 35
Net cash receipts from sales after deducting discounts	12,870 84

Table Showing the Receipt and Distribution of Antitoxin Received from the Research Laboratory during the Year 1905:

Value of antitoxin received	$145,998 85
Distributed free	113,348 50
Returned to the Laboratory on deterioration	16,299 05
Net cash receipts after deducting discounts	19,497 48

Statement of the value of Vaccine Virus and Antitoxin sold for cash and distributed free of charge in the various Boroughs during the year 1905, as follows:

Vaccine Virus.

Office.	Sold for Cash.	Free.	Percentage of Sale.
Chief Clerk	$3,538 25	$13,081 55	21
Manhattan	95 70	1,303 65	7
Bronx	22 80	360 15	6
Brooklyn	135 95	2,311 25	5½
Queens	.....	203 70	....
Richmond	1 00	127 25	¾

Antitoxin.

Office.	Sold for Cash.	Free.	Percentage of Sale.
Chief Clerk	$811 25	$53,329 00	1½
Manhattan	238 25	6,761 00	3
Bronx	23 00	3,845 50	3/5
Brooklyn	104 50	19,522 00	½
Queens	.....	349 75	....
Richmond	2 00	607 75	⅓

The percentage of antitoxin and vaccine virus sold over the counter in the Chief Clerk's office, in comparison with that distributed free being so much greater than in the Borough offices as appears in the above tables, is possibly due to the fact that antitoxin stations are established in drug stores located in close proximity to the branch offices in the various Boroughs, thus causing a laxity of business in that particular Borough office.

It would be consistent with good judgment to revoke the agreement of antitoxin stations located in the manner indicated, so that the Borough office would be able to maintain its proper percentage of sales and the necessary supervision of the free distribution of the products.

A report from the Commissioners of Accounts covering an audit of the antitoxin and vaccine virus accounts between October 1902 and January 1904, was received on August 19, 1905.

Steamboat "Riverside."

This model hospital boat to be used for the transportation of persons sick with contagious diseases, is 126 feet long, 30 feet wide, and 9 feet, 6 inches deep. She has a steel hull and two decks, the wards for patients being on the main deck, and the rooms for convalescents, nurses, and accommodations for the Commissioner and other officials being built on the upper deck.

The boat is of the twin screw type, having two compound propelling engines and a water tube boiler.

Bids for building the boat were opened on March 1, 1905, and the contract was awarded to the Burlee Dry Dock Company for the sum of $62,475, on March 20, 1905.

During the months of March and April the steel was ordered and the frames delivered at the yard, the mould loft work was done, the joiner work framing for the rooms on the upper deck finished, and patterns made for the engine bed plates.

During May, the frames and reverse frames were furnaced and punched, the keel blocks laid, and the joiner work panels for the boat finished.

In June the stern and rudder frame forgings were finished, the keel laid and all frames, bulkheads, stem and stern frame erected. The work in the joiner shop was practically finished.

In July all shell plates and deck plates were bolted upon the ship and three parts riveted.

By the end of September all the steel work was riveted, caulked, and tested, the main deck was two-thirds laid, the upper deck laid, pilot house and rooms on upper deck framed, and the canvas laid on the upper deck.

Work was proceeding on the cylinders, bed plates, columns, etc., for the main engines. All pumps had been received at the yard.

In October the fresh water tanks were fitted, the dynamos, boiler and other machinery parts were delivered at the yard. The main deck was caulked and pitched, the steel bulkheads forming the wards were built, and the pilot house and rooms on the upper deck practically finished.

By the end of December the main engines were one-half erected, the rudder hung in place, and the ways in place for launching.

The boat was launched at the Burlee Dry Dock Company's ship yard on Staten Island on date scheduled. Invitations to attend the launching were sent to the various officials of the City Government and persons prominently interested in public affairs. It was largely attended, His Honor, the Mayor being present, made the opening address, accepting the boat on behalf of the City, after which Miss Dorothea Darlington, daughter of Hon. Thomas Darlington, M. D., President of the Board of Health, christened the boat "Riverside." A collation was served in the offices of The Burlee Dry Dock Co.

The builders anticipate that the boat will be complete and ready to deliver to the City by March 1, 1906.

TUBERCULOSIS SANATORIUM, OTISVILLE, NEW YORK.

Under the personal direction of the Hon. Thomas Darlington, President of the Board of Health, measures were employed to obtain a suitable location for the erection of a tuberculosis sanatorium to more properly care for the vast number of persons in this city ill with tuberculosis, the present hospital accommodations being limited, many deserving persons have been compelled to forego the proper treatment. With this idea in view, after inspecting many proposed locations, the Board definitely decided to purchase for the use of this Department, a large tract of land in Otisville, Town of Mount Hope, Orange County, New York, to be devoted to this purpose. About 1,200 acres of land have already been secured, and extensive preparations are now under way to prepare the same for the reception of tuberculosis patients during the coming year. This will be an entirely new field of operation, but with these new properties, it is proposed to establish one of the most beneficial branches of the hospital service of The City of New York.

The soil consisting principally of farming land, and being fertile and productive, it is intended to eventually establish a model farm and dairy for the purpose of supplying fresh milk, butter, eggs, and green vegetables and other farm products, for use not only for the Tuberculosis Sanatorium, but for the other hospitals under the control of this Department located in this City.

The Commissioner being particularly impressed with the location and general surroundings of this site for hospital purposes, extended

invitations to many medical experts and prominent physicians interested in the treatment of tuberculosis, to accompany him on a trip arranged for the purpose of inspecting the proposed site, a special train being chartered for this purpose. After a careful examination of the property, it was the consensus of opinion that an ideal location had been secured.

Department Hospitals.

The following contracts were executed for the construction of new buildings, alterations to old buildings, and permanent improvements effected in the various hospitals of the Department during the year 1905, as hereafter enumerated:

Hospital.	Contractor.	Construction of	Cost.
Willard Parker	James MacArthur	Boiler house	$42,634 00
"	Louis Wechsler	Repairs and alterations	44,800 00
"	Stoddard & Hughes	Chemical laboratory and storeroom	13,675 00
"	Alex. S. Traub	Coal-house	7,483 00
"	J. M. Knopp	Kitchen building	14,316 00
Reception	Springsted & Adamson	Fence	6,721 00
Riverside	Burlee Dry Dock Company	Steamboat	62,475 00
"	Sherman Brown-Clements Co	Launch	9,999 00
"	P. Kieran	Dormitory	2,500 00
"	Springsted & Adamson	Solarium	4,741 00
"	W. E. Elderd	New boiler	4,490 00
"	Foster & Alford	Isolation Ward (2)	31,723 00
"	W. E. Elderd	Gas-house	3,127 00
"	C. W. Leavitt	Prospectus	3,000 00
Kingston avenue	James MacArthur	Cold storage building	13,593 00
"	Kny-Scheerer Co	Sterilizing chamber	2,385 00
"	R. G. Foster	Fence	14,323 00
"	Thomas G. Carlin	Stable	24,997 00
"	James MacArthur	Pipe Gallery	21,000 00
"	James MacArthur	New boiler	9,488 00
"	E. Reitzler & Co	Pipe system	26,881 00
"	C. W. Leavitt	Landscape plans	1,500 00
"	Bernstein & Bernstein	Storehouse building	2,500 00
Brooklyn	B. L. Gilbert	Plans for office building	10,715 00
Total			$379,066 00

Contracts were also prepared and printed for the construction of the following improvements which have not as yet been awarded nor executed:

Tuberculosis Pavilion—Riverside Hospital.

Alterations to Department Building—Manhattan.

Dormitory Building—Willard Parker Hospital.

Statement of Expenditure of the Various Hospitals Controlled by this Department during 1905, Showing Total Cost of Operation and Maintenance and Average Per Capita Cost for Patients at Each Hospital:

Expended for	Total.	Willard Parker and Reception.	Trachoma Hospital.	Riverside Hospital.	Kingston Avenue Hospital.
Foods and food supplies	$95,618 63	$20,816 18	$1,969 74	$41,699 28	$31,133 43
Drugs, instruments and pharmaceutical supplies	19,284 03	4,198 13	397 25	8,409 77	6,278 88
Furniture and supplies, including Fuel, engineers' supplies, telephone charges, carpenters' and gardeners' supplies, etc.	85,267 12	18,562 63	1,756 51	37,185 00	27,762 98
Clothing, boots and shoes, bedding, etc.	24,856 74	5,411 32	512 02	10,840 04	8,093 36
Repairs and improvements to buildings and grounds	14,801 17	3,222 21	304 91	6,454 79	4,819 26
Salaries	225,589 12	56,100 57	20,747 91	78,137 68	70,602 96
Total cost	$465,416 81	$108,311 04	$25,688 34	$182,726 56	$148,690 87

	Willard Parker Hospital.	Trachoma Hospital.	Riverside Hospital.	Kingston Avenue Hospital.
Average daily census of patients for 1905	65.00	*27.00	206.11	151.60
Daily cost per capita for patients	$4.55	$2.60	$2.43	$2.73

* The Per Capita Cost for the Trachoma Hospital includes the patients treated at the two Clinics, but which are not included in the daily census.

Number of patients treated at Clinics during 1905 14,459

Assistant Chief Clerks (Borough Offices).

Supervision of the offices of the Assistant Chief Clerks in the various Boroughs was continued, with the introduction of new methods and systems in the keeping of the records of the antitoxin and vaccine virus accounts with this office, which has proven very satisfactory, and meas-

ures have been taken to install a new method governing the receipt and distribution of all books, blanks, and stationery supplies used in the Borough offices.

Owing to limited accommodations and to increased work in the various Divisions of the Department in the Borough of Manhattan, it was found necessary to lease the three upper floors of the building No. 963 Sixth avenue, adjoining the building now occupied by the Department, which have been equipped and occupied, and a bridge built connecting the two buildings, thus relieving the congested conditions previously existing.

On December 19, 1905, the Aldermen's Committee on Streets, Highways and Sewers, to whom was referred on May 16, 1905, a resolution in regard to the site selected by the Commissioner of Health for an office building in Brooklyn, made a favorable report and the resolution was adopted by the Board of Aldermen, approving the site for an office building, clinic and stable in the Borough of Brooklyn, bounded and described as follows:

Beginning at the point of intersection of the westerly side of Fleet place with the southerly side of Willoughby street, and running thence westerly along the southerly side of Willoughby street 101.98 feet to the easterly line of a street as shown on a draft damage map in the matter of acquiring title to the street as an approach to Manhattan Bridge, extending from Nassau street to the intersection of Flatbush avenue and Fulton street, in the Fourth, Fifth and Eleventh Wards, Borough of Brooklyn, City of New York, filed in the office of the President of the Borough of Brooklyn, dated New York, October 14, 1904, and approved by the Commissioner of Public Works on that date; thence running southeasterly along the easterly line of said street 184.17 feet, more or less, to the northwesterly side of Fleet street; thence northeasterly along the northwesterly side of Fleet street 61.53 feet to the westerly side of Fleet place, and thence northerly along the westerly side of Fleet place 115.19 feet to the point or place of beginning; which is assessed for the purposes of taxation with other property, in the sum of $42,100, and the Corporation Counsel was authorized to institute condemnation proceedings for the acquisition of the above described property.

Nothing contained in the resolution was to be construed as preventing the Comptroller of The City of New York from entering into contracts for the acquisition of any portion of the above described property at private sale, subject to the approval of the Board of Aldermen.

This will be the first building in any of the Boroughs for use as an office building by this Department to be owned by the City, the plans have been already prepared.

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE ASSISTANT CHIEF CLERK, BOROUGH OF MANHATTAN.

The following official reports, communications and applications, summarized and classified as to the subject matter, were received in the office of the Assistant Chief Clerk and submitted to the Board, through the Secretary, for consideration and final action:

Special reports and communications submitted to the Board of Health for action	515
Premises declared a public nuisance	235
Premises ordered vacated	150
Lodging-house permits granted	145
Cow permits granted	214
Mercantile permits granted	34
Miscellaneous permits granted	3,774
Permits denied	1,886
Permits revoked	1,748
Board orders extended or modified	812
Extension or modification of Board orders denied	696
Board orders rescinded	1,597
Delayed and imperfect certificates of births, marriages and deaths approved and ordered filed	7,428
Corrected certificates of births, marriages and deaths approved and ordered filed	1,418
Certificates of registration issued to master plumbers	672

Orders Issued by the Board of Health.

Orders of the Board for the abatement of nuisances are issued under the supervision of the Assistant Chief Clerks in the various Boroughs, upon the facts and evidence contained in the written reports of the Sanitary Inspectors, the result of personal inspection of premises complained of. These orders call the attention of owners, lessees and agents to violations of the Sanitary Code and Health Laws in each case, and require the necessary alteration, repairs, cleaning and improvement of the premises named within three days from the receipt of the order. If, upon reinspection, it is found that the requirements of the order have not been complied with, a suit for penalty is commenced against the delinquents under sections 1,172 and 1,222, chapter 466, Laws of 1901.

Summary of Clerical Work Performed in the Various Boroughs in Connection with the Issuance of Board Orders, Negative Reports Filed, and Fees Paid and Certificates Issued, the Result of Searching for Sanitary Violations Against Premises; Also Written References Forwarded to Other City Departments as Follows:

Borough.	Board Orders Issued.	Negative Reports Filed.	References to Other Departments.	Searches Made and Certificates Issued.	Communications Received and Answered.	Fees Received.
Manhattan	14,850	6,465	1,703	2,254	2,196	$1,194 50
Brooklyn	7,064	6,472	3,653	146	509	75 00
Bronx	2,303	1,891	537	519	652	259 50
Queens	1,345	545	285	....	....	.....
Richmond	1,577	202	84	6	905	3 00
Totals	27,139	15,575	6,262	2,925	4.262	$1,532 00

Searches and Transcripts of Births, Marriages and Deaths.

Certified copies of the records of Vital Statistics as may be found to be on file in the Bureau of Records, were furnished to applicants authorized to receive same, namely, interested parties, next of kin, legal representatives, etc., upon payment of the fee in such cases prescribed by the Board of Health. Written orders were signed by the Assistant Chief Clerk in the various boroughs and issued to the Assistant Registrar

of Records, authorizing the search and issuance of a transcript of the record, which, in accordance with the regulations of the Board is authenticated by affixing the seal of the Department of Health, and attested by the signature of the Assistant Chief Clerk of the Borough. When search is made and the record is not found to be on file, an official certificate is issued to that effect.

Summary of Applications for Searches Made to the Assistant Chief Clerks in the Various Boroughs, Showing Fees Received and Work Performed in Connection with Searches and Transcripts of the Records of Births, Marriages and Deaths on file in the Bureau of Records in the Department:

Borough.	Applications for Searcher.	Transcripts Signed and Authenticated.			Not Found Certificates Issued.	Communications Received and Answered.	Fees Received.
		Births.	Marriages.	Deaths.			
Manhattan	22,040	2,061	2,497	16,700	2,974	4,690	$11,132 40
Brooklyn	10,584	442	1,003	7,956	1,266	1,256	5,522 40
Bronx	1,731	22	79	1,954	42	94	881 40
Queens	836	22	35	924	72	181	438 70
Richmond	333	39	19	298	20	126	165 50
Totals	35,524	2,586	3,633	27,832	4,374	6,347	$18,140 40

Written Acknowledgment of Complaints Received.

All mail matter and letters addressed to the Department of Health are carefully scrutinized, and those in which complaints are made relative to matters within the jurisdiction of the Department, and giving the names and addresses of the authors, are promptly acknowledged. Those requiring attention of other city departments are acknowledged and immediately forwarded for such action as may be found necessary.

Statement of the Number of Written Complaints Received and Answered in the Various Boroughs.

Manhattan	4,149
Brooklyn	3,127
Bronx	689
Queens	1,052
Richmond	409
Total	9,426

MONEY DISBURSED.

Statement of the Disbursements of Moneys in the Various Boroughs by the Assistant Chief Clerks, Showing the Total and the Amounts in Detail; also the Purposes for which the Disbursements Were Made as follows:

Borough.	Department Pay Rolls.	Hospital Pay Rolls.	Postage Stamps and Incidental Expenses.
Manhattan	$617,688 14	$56,094 86	$14,500 00
Brooklyn	166,024 85	70,602 96	3,450 00
Bronx	56,547 11	84,373 75	894 59
Queens	44,326 54	.....	564 30
Richmond	37,665 79	.....	193 99
Totals	$922,252 43	$211,071 57	$19,602 88

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE ASSISTANT CHIEF CLERK, BOROUGH OF BROOKLYN.

In the first part of the month of February there was considerable trouble with the fireproof vault which contained the records of births, deaths and marriages, owing to a leakage of water into the same. It was found necessary to hire fireproof rooms in the Eagle Storage Warehouse Company, 28 Fulton street, where all our records are placed. This has been a slight drawback as to the getting out of transcripts, as the applications for transcripts which were made in this office, in nearly all cases, have to be made out at the vault and mailed to the people making the applications.

The following table will show the amount of vaccine virus, antitoxin, mallein and tetanus serum which has been sold, and given away free to Inspectors, Physicians and Institutions for the year ending December 31, 1905:

	Antitoxin.	Virus.	Mallein.	Tetanus.
Cash sales	$93 34	$116 08	$59 15	$11 00
Free	19,552 25	2,303 85	1 05	244 00
Stock on hand	550 50	124 30	7 35	18 00
Totals	$20,196 09	$2,544 23	$67 55	$273 00

The money received from all cash sales of vaccine virus, antitoxin, etc., also for searches of births, marriages, deaths and violations, is forwarded to the Manhattan office weekly. The following shows the exact amount forwarded from January 1, 1905, to December 31, 1905:

	1904.	1905.
Account searches and transcripts	$4,999 00	$5,522 40
Account antitoxin	117 85	93 34
Account virus	97 57	116 08
Account mallein	70 35	59 15
Account tetanus	3 80	11 00
Account violations	51 00	75 00
Account tuberculin	.....	2 50
Totals	$5,339 57	$5,879 47

	1904.	1905.
Number of orders for transcripts issued	9,869	10,690
Number of orders for sanitary violations	102	150

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE ASSISTANT CHIEF CLERK, BOROUGH OF THE BRONX.

During the year 1905 there were issued 2,303 Board's Orders requiring the abatement of nuisances.

Applications for search of the records on file in this office for violations pending against real estate numbered 519. The amount of fees received for these searches was $259.50, as against $171 last year.

The applications for searches of records of Vital Statistics numbered 1,731, and the receipts for these searches amounted to $881.40 as against $1,000.20 during the previous year. This decrease in receipts is accounted for by reason of the fact that during 1904 there were filed in one week in this office 918 certificates of death caused in the Slocum disaster off North Brother's Island, in this Borough. Taking this amount in comparison to a normal year, 1903 for instance, during which year the receipts were $689.90, the increase in applications for transcripts and the amount of money received therefor is a substantial increase for this year.

The unprecedented activity in the real estate market is also felt in this Department bringing with it extra labor in the search of our records, and in the making out of orders therefor. This has now become a very important branch of the work of this office since by resolution of the Board the prescribed fee was instituted for these searches. Prior to this arrangement there were very few inquiries made by lawyers, real estate men and other interested parties for this information which is now given in regular form.

Herewith is shown in detail the amount of Laboratory products disposed of during the year from this building:

Antitoxin.

Amount sold for cash	$21 45
Amount given away	3,845 50

Virus.

Amount sold for cash	$19 77
Amount given away	360 15

Tetanus.

Amount sold for cash	.....
Amount given away	$14 00

Tuberculin.

Amount sold for cash	.....
Amount given away	$0 50

During the past year 1,010 applications for permits were made to the Board through this office as against 530 for last year.

During this year there have been added to the clerical force of this Department in The Bronx, two typewriting Copyists, two Junior Clerks, one Office Boy, and one Telephone Switchboard Operator. This additional help was very much needed to keep apace with the steadily increasing amount of business required to be transacted through this office.

In the Annual Report for 1904, attention was called to the very urgent necessity for new quarters of this Department in this Borough, the building situated at No. 1237 Franklin avenue, had outgrown its usefulness for office purposes, was in very poor condition generally and on account of its being a frame building the valuable records of this

Department were in constant jeopardy of being destroyed should a fire occur therein. The matter was taken up shortly after this report was made and after considerable difficulty regarding a suitable location for the new quarters and the great obstacle encountered from owners of buildings in reference to a rent within the amount available for this purpose, a building was secured which has proved to be a very conveniently situated and ideal building for the purpose for which it is used. On the 14th day of December a notification was received that the old quarters must be vacated by 12 o'clock noon on the following day in order to comply with the terms of the lease of these premises. No time was lost by the entire working force in arranging the property of the several offices so that it could be readily removed by the movers. As a result of the untiring efforts of all those who kindly assisted in the moving, the old quarters were locked and given up by one o'clock on December 15.

In the new office there are 4,500 square feet of available floor space for office purposes as compared with 2,000 in the old quarters. Besides this there are at least 1,200 square feet of floor space in the cellar for the storage of old records.

In the first floor, front, is situated the office of the Division of Contagious Diseases and the Mercantile Bureau. In the centre of the first floor is the office of the Division of Communicable Diseases. Back of this office is a room set apart and which will later be used as a clinic connected with that Division. On the second floor, front, is the office of the Assistant Registrar of Records and the office of the Assistant Chief Clerk. On the second floor, rear, is the Assistant Sanitary Superintendent's office and waiting room, the Order Clerk's office, the Complaint Clerk's office and the office of the Sanitary Police Inspectors.

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE ASSISTANT CHIEF CLERK, BOROUGH OF QUEENS.

Comparison with the transactions of the office in the preceding year shows a marked increase in each particular line, due in a large measure to the rapid growth of population; the consequent increase in the number of deaths accounting for the larger number of applications for searches and transcripts.

There has been a steady increase in the number of citizens complaints filed each year since the establishment of the Department offices in the Borough, those of 1905 being 100% greater than in 1898. This fact might be taken to indicate more unfavorable sanitary conditions as existing. On the contrary, it is due to the residents of the Borough acquiring knowledge of the prompt and satisfactory manner in which the Department handles such matters as are brought to its attention.

In addition to the personal attention to all correspondence and issuing of Board's orders and orders for searches, etc., the supervision of the printing and mailing of daily lists of contagious diseases to the public schools; charge and distribution of supplies; issuing of requisitions; certification of bills, the duties of Assistant Chief Clerk in this Borough include the handling of orders in their first stages through the Corporation Counsel's office, and the interviewing of hundreds of complainants and suppliants for relief or modification of orders in the absence of the offices of the Sanitary Bureau.

The office force of the Assistant Chief Clerk now consists of two Senior Clerks, one Clerk (typewriter), one Stenographer, and one Office Boy.

The telephone business of the Department has increased to such an extent that attendance at the switchboard materially interferes with the regular work of the clerks. The services of a Telephone Operator would greatly facilitate the business of this office and the Department generally.

[illegible]

[illegible]

[illegible]

Citizens' complaints received	[illegible]
Citizens' complaints acknowledged	[illegible]
Citizens' complaints anonymous or personally made	[illegible]

[illegible]

Board's orders issued	[illegible]
Negative reports filed	[illegible]
Communications in relation to orders received and acknowledged	[illegible]
References to other departments	[illegible]

[illegible]

Searches made and certificates issued	
Communications received and answered	
Fees received	

[illegible]

Applications for searches ...	[illegible]
Transcripts signed and authenticated	[illegible]
Not found certificates issued	[illegible]
Communications received and answered	181
Fees received	$[illegible]

STATEMENT OF WORK PERFORMED IN THE OFFICE OF THE ASSISTANT CHIEF CLERK, BOROUGH OF RICHMOND.

Distribution of Antitoxin.

The demand for free antitoxin has increased during the year, but there has been but one cash sale. This may be explained for the reason that one of the stations is located within two blocks of the Department, which is open from six A. M. until ten P. M. on all days, Sundays and holidays included, and it is more convenient for physicians to receive their antitoxin at this station than at the Department.

During the year there have been distributed for free use 372 vials of antitoxin, amounting to $607.75, distributed as follows:

To Department Inspectors	81	vials.
S. R. Smith Infirmary	256	"
Nursery and Child's Hospital	11	"
Seaside Hospital	14	"
Outside physicians	10	"
Total	372	vials.
Cash sale	2	vials.

Distribution of Vaccine.

Vaccine virus, like the antitoxin, has been distributed only to the Inspectors of the Department, with one exception, where ten points were sent to one of our stations.

To Department Inspectors	89	vials.
To Department Inspectors	75	points.
Cash sales	10	points.

The free distribution and sales, amounting to $169.65.

The following official reports, communications and applications, summarized and classified as to the subject matter were received in the office of the Assistant Chief Clerk and submitted to the Board, through the Secretary, for consideration and final action during the year 1905:

Special reports and communications submitted to the Board of Health for action	279
Premises declared a public nuisance	238
Premises ordered vacated	16
Lodging-house permits granted	.....
Cow permits granted	159
Mercantile permits granted	.....
Miscellaneous permits granted	1,580
Permits denied	30
Permits revoked	110
Board orders extended or modified	34
Extension or modification of Board orders denied	70
Board orders rescinded	62

Delayed and imperfect certificates of births, marriages and deaths approved and ordered filed	12
Corrected certificates of births, marriages and deaths approved and ordered filed	9
Certificates of registration issued to master plumbers	....
Board orders issued	1,577
Negative reports filed	202
References to other departments	84
Searches made and certificates issued	6
Communications received and answered	905
Fees received	$3 00
Applications for searches	333
Transcripts signed and authenticated—	
Births	39
Marriages	19
Deaths	298
Not found certificates issued	20
Communications received and answered	126
Fees received	$165 50
Written complaints received and answered	254
Department pay-rolls	$37,412 79
Postage stamps and incidental expenses	193 99

WORK PERFORMED BY THE ASSISTANT CORPORATION COUNSEL FOR THE BOROUGHS OF MANHATTAN, BROOKLYN, THE BRONX, QUEENS AND RICHMOND, YEAR ENDING DECEMBER 31, 1905.

Borough of Manhattan.

Orders received from the Board of Health for issuance of notice of intention to commence action	2,672
Notices of intention to commence action issued and served	2,672
Orders pending December 31, 1904	187
Orders complied with after issuance and service of notice	2,035
Orders complied with after suit	314
* Orders now pending (December 31, 1905)	510
Orders received for suit	431
Civil actions commenced to recover penalties on orders, and for violation of Sanitary Code	435
Other civil actions commenced	13

* 437 of which have not been received for suit.

Civil actions pending December 31, 1904	13
Judgments recovered in civil actions in favor of the Department of Health	29
Judgments vacated and set aside by order of the Court	17
Civil actions discontinued upon request of the Board of Health	376
Civil actions now pending (December 31, 1905)	73
Judgments docketed	5
Executions issued	11
Judgments collected	1
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board	$285 50
Amount of claims collected before and after suit for antitoxin and virus furnished by the Department to various parties and paid to the Secretary of Board	$324 38
Criminal actions pending last year in Court of Special Sessions	36
Criminal actions commenced	2,688
Defendants held for trial in Court of Special Sessions	752
Defendants discharged by Magistrates	337
Defendants convicted by Magistrates	1,598
† Judgments of conviction in Court of Special Sessions	753
Complaints dismissed in Court of Special Sessions	9
Judgments of acquittal in Court of Special Sessions	11
Criminal actions now pending in Court of Special Sessions (December 31, 1905)	15
Fines imposed by Court of Special Sessions	$14,398
Fines imposed by Magistrates	$3,423
Appeals pending last year	2
Appeals decided in favor of Department	2
Appeals abandoned by the defendant	1
Appeals now pending	.....

Borough of Brooklyn.

Orders received from the Board of Health for issuance of notice of intention to commence action	2,908
Notices of intention to commence action issued and served	2,908
Orders pending December 31, 1904	462
Orders complied with before and after suit	2,112
* Orders now pending December 31, 1905	1,033
Orders received for suit	550

† The above judgments of convictions include one of a fine of $150 and five days' imprisonment in the City Prison; another of fifteen days' imprisonment in the City Prison, and also one of five days' imprisonment in the City Prison.

* 759 of which have not been received for suit.

Civil actions commenced to recover penalties on orders, and for violation of Sanitary Code	550
Other civil actions commenced	25
Civil actions pending December 31, 1904	.....
Judgments recovered in civil actions in favor of the Department of Health	44
Judgments vacated and set aside by order of the Court	13
Civil actions discontinued upon request of the Board of Health	270
Civil actions now pending (December 31, 1905)	274
Executions issued	10
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board	$14 50
Criminal actions pending last year in Court of Special Sessions	108
Criminal actions commenced	503
Defendants held for trial in Court of Special Sessions	485
Defendants discharged by Magistrates	3
Defendants convicted by Magistrates	15
Judgments of conviction in Court of Special Sessions	440
Complaints dismissed in Court of Special Sessions	74
Judgments of acquittal in Court of Special Sessions	32
Criminal actions now pending in Court of Special Sessions (December 31, 1905)	47
Fines imposed by Court of Special Sessions	$3,585
Fines imposed by Magistrates	$55

Borough of The Bronx.

Orders received from the Board of Health for issuance of notice of intention to commence action	915
Notices of intention to commence action issued and served	915
Orders pending December 31, 1904	110
Orders complied with after issuance and service of notice	675
Orders complied with after suit	190
*Orders now pending (December 31, 1905)	160
Orders received for suit	234
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code	236
Civil actions pending, December 31, 1904	12
Judgments recovered in civil actions in favor of the Department of Health	8
Judgments vacated and set aside by order of the Court	4
Civil actions discontinued upon request of the Board of Health	235

* 151 of which have not been received for suit.

Civil actions now pending (December 31, 1905)	9
Judgments docketed	1
Executions issued	4
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board	$5
Criminal actions pending last year in Court of Special Sessions	2
Criminal actions commenced	48
Defendants held for trial in Court of Special Sessions	17
Defendants discharged by Magistrates	10
Defendants convicted by Magistrates	21
† Judgments of conviction in Court of Special Sessions	16
Complaints dismissed in Court of Special Sessions	3
Judgments of acquittal in Court of Special Sessions	.....
Criminal actions now pending in Court of Special Sessions (December 31, 1905)	.....
Fines imposed by Court of Special Sessions	$190
Fines imposed by Magistrates	$20

Borough of Queens.

Orders received from the Board of Health for issuance of notice of intention to commence action	133
Notices of intention to commence action issued and served	133
Orders pending, December 31, 1904	28
Orders complied with after issuance and service of notice	99
Orders complied with after suit	5
* Orders now pending (December 31, 1905)	57
Orders received for suit	61
Civil actions commenced to recover penalties on orders, and for violations of Sanitary Code	61
Civil actions pending, December 31, 1904	.....
Civil actions discontinued upon request of the Board of Health	40
Civil actions now pending (December 31, 1905)	21
Criminal actions pending last year in Court of Special Sessions	2
Criminal actions commenced	63
Defendants held for trial in Court of Special Sessions	63
Judgments of conviction in Court of Special Sessions	51
Complaints dismissed in Court of Special Sessions	7
Judgments of acquittal in Court of Special Sessions	4
Criminal actions now pending in Court of Special Sessions (December 31, 1905)	3
Fines imposed by Court of Special Sessions	$665

* 36 of which have not been received for suit.
† One defendant was sentenced by magistrate to one day's imprisonment.

Borough of Richmond.

Orders received from the Board of Health for issuance of notice of intention to commence action	511
Notices of intention to commence action issued and served	511
Orders pending, December 31, 1904	80
Orders complied with after issuance and service of notice	329
Orders complied with after suit	127
*Orders now pending, December 31, 1905	135
Orders received for suit	165
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code	180
Civil actions pending, December 31, 1904	32
Judgments recovered in civil actions in favor of the Department of Health	42
Judgments vacated and set aside by order of the Court	22
Civil actions discontinued upon request of the Board of Health	151
Civil actions now pending (December 31, 1905)	41
†Executions issued	77
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board	$99
Criminal actions pending last year in Court of Special Sessions	3
Criminal actions commenced	14
Defendants held for trial in Court of Special Sessions	14
Judgments of conviction in Court of Special Sessions	14
Complaints dismissed in Court of Special Sessions	2
Judgments of acquittal in Court of Special Sessions	1
Criminal actions now pending in Court of Special Sessions (December 31, 1905)	.....
Fines imposed by Court of Special Sessions	$90

* 94 of which have not been received for suit.
† A number of these were issued on judgments previously obtained.

REPORT ON THE LEGAL WORK.

CERTAIN DECISIONS OF IMPORTANCE.

The aggressive action of the Department taken to punish violations of the Sanitary Code, is shown by the large amount of fines imposed by the Magistrates' Court and by the Court of Special Sessions, which this year reached the sum of over five thousand dollars in excess of any previous year. These fines which were imposed largely for adulteration of milk, aggregated $22,426 as against $16,619 in 1904; $15,381 in 1903; and $17,359 in 1902. During the year there were also three sentences of imprisonment for milk adulteration—the first in many years. Of course, non-payment of the fine means imprisonment, but in three cases just referred to the Court imposed imprisonment absolutely as a part of the punishment.

The increase is most apparent in the Court of Special Sessions, First Division, embracing the Boroughs of Manhattan and The Bronx, where from $7,650 in 1904, the fines reached $14,398 in 1905.

A comparison of the years 1904 and 1905 with the previous administration of 1902 and 1903, shows an increase in the amount of fines of $6,305.

Special mention should be made also of prosecutions during the year for violations of section 43 of the Sanitary Code prohibiting the sale of so-called "bob veal." Quantities of "bob veal" had been seized while in the possession of retail butchers and upon their affidavits the wholesalers from whom they had made purchases were arrested, tried and heavy fines imposed by the Court of Special Sessions, in some cases the fines being as high as $150. It had been very difficult to find this unwholesome meat in the possession of the wholesale men, as they had a way of keeping it from view, and these cases were practically the first in the history of the Department of successful prosecutions of wholesale dealers by the aid of the retail men in the manner described.

CASES.

PEOPLE OF THE STATE OF NEW YORK *ex rel.* SIMON LIEBERMAN, PLAINTIFF-IN-ERROR, *against* JOHN E. VAN DE CARR, WARDEN, ETC., DEFENDANT-IN-ERROR.

On December 11, 1905, the Supreme Court of the United States decided this case in favor of the Department of Health. The action, which was a criminal prosecution commenced in 1902, involved the right of the Board of Health of New York City to adopt an ordinance requiring a person engaged in the sale of milk to obtain a permit to sell milk in the City of New York. Section 66 of the Sanitary Code had been adopted and this section provides that: "No milk shall be received, held, kept, offered for sale or delivered in The City of New York without a permit in writing from the Board of Health and subject to the conditions thereof."

Simon Lieberman was arrested on a warrant issued by a Magistrate, charging him with a violation of section 66 of the Sanitary Code. On being arraigned, he pleaded not guilty; and on a preliminary hearing before the Magistrate, he was held to answer for the crime, and a commitment was issued committing him to the custody of the warden and keeper of the city prison in default of bail which was fixed at $100. After giving bail he was surrendered by the sureties, whereupon he sued out a writ of habeas corpus.

Lieberman appealed the case, and on the 20th of March, 1903, the Appellate Division of the Supreme Court dismissed the writ of habeas corpus.

An appeal was then taken to the Court of Appeals which was argued June 1, 1903, and decided June 25, 1903, in favor of the Department. The Court of Appeals decided that the ordinance requiring a permit to sell milk was reasonable and valid; that it was not unconstitutional and that the Board of Health acted within the scope of its powers when it adopted the ordinance in question.

An appeal was then taken to the Supreme Court of the United States by a writ of error to review the judgment of the Court of Appeals of the State of New York and the case was argued November 9, 1905.

In deciding the case, holding the ordinance to be reasonable, valid and not unconstitutional, the Supreme Court rendered the following opinion, in which all the Judges concurred. Mr. Justice Day delivered the opinion of the court:

" Simon Lieberman was arrested and held for trial by a Magistrate of The City of New York, charged with violating Section 66 of the Sanitary Code of New York City. After being committed to the custody of the warden of the city prison, plaintiff-in-error sued out a writ of habeas corpus.

" At the hearing before a Justice of the Supreme Court at Special Term, the writ was dismissed and the prisoner remanded to the custody of the warden. Upon appeal to the Appellate Division of the Supreme Court, the order of the Special Term was affirmed. This judgment was affirmed by the Court of Appeals of the State of New York (178 N. Y., 440; 67 N. E., 913), and the case remitted to the Supreme Court, where judgment was entered on the remittitur. The case was then brought here by writ of error.

" The section of the Sanitary Code complained of is as follows:

" ' Section 66.—No milk shall be received, held, kept, either for sale or delivered in The City of New York, without a permit in writing from the Board of Health, and subject to the conditions thereof.'

" The violation of the Sanitary Code is made a misdemeanor. That the Board of Health had power to pass the Sanitary Code, which includes this section, is not open to question here, as it has been affirmatively decided in the State Court. The objection on Federal grounds for our consideration are two-fold: First, that the section under consideration devolves upon the Board of Health absolute and despotic power to grant or withhold permits to milk dealers, and is, therefore, not due process of law; second, that singling out the milk business for regulation is a denial of the equal protection of the laws to people engaged therein.

" The record discloses that the plaintiff-in-error, engaged in selling milk in The City of New York before his arrest, had a permit, which was revoked by the Board of Health. He was thereafter found engaged through an agent in selling milk without a permit. In the testimony

it appears, in a conversation between the plaintiff-in-error and an inspector in the Department of Health, the latter admitted that Lieberman's milk 'stood well.'

"The right of the State to regulate certain occupations which may become unsafe or dangerous when unrestrained, in the exercise of the police power, with a view to protect the public health and welfare, has been so often and so recently before this Court that it is only necessary to refer to some of the cases which sustain the proposition that the State has a right, by reasonable regulations, to protect the public health and safety. *Boston Beer Co.* vs. *Massachusetts*, 97 U. S., 25, 24 L. ed., 989; *New Orleans Gaslight Co.* vs. *Louisiana Light & H. P. & Mfg. Co.* 115 U. S., 650, 29 L. ed., 516, 6 Sup. Ct. Rep., 252; *Crowley* vs. *Christensen*, 137 U. S., 86, 34 L. ed., 620, 11 Sup. Ct. Rep., 13; *Lawton* vs. *Steele*, 152 U. S., 133, 38 L. ed., 385, 14 Sup. Ct. Rep., 499; *Jacobson* vs. *Massachusetts*, 197 U. S., 11, 49 L. ed., 643, 25 Sup. Ct. Rep., 358; *California Reduction Co.* vs. *Sanitary Reduction Works*, 199 U. S.—, *ante*, 100, 26 Sup. Ct. Rep., 100; *Gardner* vs. *Michigan*, 199 U. S.—, *ante*, 106, 26 Sup. Ct. Rep., 106.

"The contention of counsel for plaintiff in error is not that a business so directly affecting the health of the inhabitants of the city as the furnishing of milk may not be the subject of regulation under the authority of the State, but that the Court of Appeals of New York has sustained this right of regulation to the extent of authorizing the Board of Health to exercise arbitrary power in the selection of those it may see fit to permit to sell milk under the section quoted; and, thus construed, it works the deprivation of the plaintiff in error's liberty and property without due process of law. We do not so understand the decision of the highest court of New York. As we read it, the authority sustained is the grant of power to issue or withhold permits in the honest exercise of a reasonable discretion. In the opinion of the Appellate Division, whose judgment was affirmed in the Court of Appeals, it was said:

'Such regulations, however, should be uniform, and the board should not act arbitrarily; and if this section of the Sanitary Code vested in them arbitrary power to license one dealer (in a lawful commodity) and refuse a license to another similarly situated, undoubtedly it would be invalid (*Yick Wo* vs. *Hopkins*, 118 U. S., 356, 30 L. ed., 220, 6 Sup.

Ct. Rep. 1064; *Gundling* vs. *Chicago*, 177 U. S., 183, 44 L. ed., 725, 20 Sup. Ct. Rep. 633; *Noel* vs. *People*, 187 Ill., 587, 52 L. R. A. 287, 79 Am. St. Rep., 238, 58 N. E. 616; *Dunham* vs. *Rochester*, 5 Cow. 462; *Brooklyn* vs. *Breslin*, 57 N. Y., 591); but such was not its purpose, nor is that its fair construction. It is unnecessary now to determine whether the action of the board in refusing or revoking such a permit would be judicial, and thus reviewable by mandamus or certiorari, or whether, if the authority should be arbitrarily or improperly exercised, the only remedy would be an application for the removal of the officers; for those are questions that may arise in the administration of the law, but do not go to its validity. The section, properly construed, does not permit unjust discrimination, and, therefore, it is valid' (81 App. Div. 132, 80 N. Y. Supp. 1108).

"The Court of Appeals, affirming the decision of the Appellate Division, did not speak with equal emphasis upon this point, but it leaves no doubt that it sustained the statute as authorizing the exercise of a reasonable discretion. While that court held that the discretion to grant or withhold permits might be vested in a Board of Health with opportunities to know and investigate local conditions and surroundings, it is further said:

'In the case before us the requirement of section 66 of the Sanitary Code, that the relator should not sell milk without a permit, is reasonable, and violates neither Federal nor State Constitution, is in accordance with law and long-established precedent.

'In the argument of this case several questions have been discussed that are not presented by the appeal. It is, for instance, argued that, even conceding a permit to be necessary, the provision that the holder is to be "subject to the conditions thereof" cannot be sustained for a variety of reasons suggested.

'It is a complete answer that the form of the permit is not in the record; it does not appear that it has attached to it conditions reasonable or otherwise. We consequently express no opinion on the subject.

'What we have already said applies with equal force to the argument that the permit might be loaded with conditions, the nature of which is not limited or stated; that it may be used to build up monopoly, to help a favored few as opposed to the many; that there is no other

statute which presents such possibilities for blackmail and oppression. These and many other like criticisms are indulged in by appellant.

'If the question was before us, the well-settled canon of construction permits of no such argument.

'It is presumed that public officials will discharge their duties honestly and in accordance with the rules of law.'

"We do not think that this language leaves any question as to the disposition of the highest court of New York to prevent the oppression of the citizen or the deprivation of his rights, by an arbitrary and oppressive exercise of the power conferred. That this court will not interfere because the States have seen fit to give administrative discretion to local boards to grant or withhold licenses or permits to carry on trades or occupations, or perform acts which are properly the subject of regulation in the exercise of the reserved power of the States to protect the health and safety of its people, there can be no doubt. In *Davis* vs. *Massachusetts*, 167 U. S., 43, 42 L. ed., 71, 17 Sup. Ct. Rep., 731, an ordinance of the City of Boston, providing that no person shall make any public address in or upon the public grounds, except in accordance with a permit from the Mayor, was held not in conflict with the 14th Amendment to the Constitution of the United States. In *Wilson* vs. *Eureka City*, 173 U. S., 32, 43 L. ed., 603, 19 Sup. Ct. Rep., 317, an ordinance requiring persons to obtain written permission from the Mayor or President of the City Council, or, in their absence, a councilor, before moving a building upon any of the public streets of the city, was sustained as not violative of the Federal Constitution. In the opinion of the Court a number of instances were given in which acts were prohibited except with the consent of an administrative board, and which were sustained as proper exercises of the police power. In *Gundling* vs. *Chicago*, 177 U. S., 183, 44 L. ed., 725, 20 Sup. Ct. Rep., 633, an ordinance was sustained permitting the Mayor to license persons to deal in cigarettes when he was satisfied that the person applying for the license was of good character and reputation, and a suitable person to be intrusted with their sale. And in the recent case of *Jacobson* vs. *Massachusetts*, 197 U. S., 11, 49 L. ed., 643, 25 Sup. Ct. Rep., 358, this court sustained a compulsory vaccination law which delegated to the Board of Health of cities or towns the determination of the necessity of requiring the in-

habitants to submit to compulsory vaccination. And in *Fischer* vs. *St. Louis*, 194 U. S., 361, 48 L.ed., 1018, 24 Sup. Ct. Rep., 673, an ordinance of the City of St. Louis, providing that no dairy or cow stable should thereafter be built or established within the limits of the city, and no such stable not in existence at the time of the passage of the ordinance should be maintained on any premises, unless permission should have been first obtained from the municipal assembly by ordinance, was sustained as a proper exercise of the police power. After sustaining the right to vest in a board of men acquainted with the local conditions of the business to be carried on, power to grant or withhold permits, this court said:

'It has been held in some of the State courts to be contrary to the spirit of American institutions to vest this dispensing power in the hands of a single individual (*Chicago* vs. *Trotter*, 136 Ill. 430, 26 N. E. 359; *Re Frazee*, 63 Mich. 396, 6 Am. St. Rep., 310, 30 N. W. 72; *State* vs. *Fiske*, 9 R. I. 94; *Baltimore* vs. *Radecke*, 49 Md. 217, 33 Am. Rep. 239; *Sioux Falls* vs. *Kirby*, 6 S. D. 62, 25 L. R. A. 621, 60 N. W. 156), and in others that such authority cannot be delegated to the adjoining lot owners (*St. Louis* vs. *Russell*, 116 Mo. 248, 20 L. R. A. 721, 22 S. W. 470; *Ex parte Sing Lee*, 96 Cal. 354, 24 L. R. A. 195, 31 Am. St. Rep., 218, 31 Pac. 245). But the authority to delegate that discretion to a board appointed for that purpose is sustained by the great weight of authority (*Quincy* vs. *Kennard*, 151 Mass. 563, 24 N. E. 860; *Com.* vs. *Davis*, 162 Mass. 510, 26 L. R. A. 712, 44 Am. St. Rep., 389, 39 N. E. 113), and by this court the delegation of such power, even to a single individual, was sustained in *Wilson* vs. *Eureka City*, 173 U. S., 32, 43 L. ed., 603, 19 Sup. Ct. Rep., 317, and *Gundling* vs. *Chicago*, 177 U. S., 183, 44 L. ed., 725, 20 Sup. Ct. Rep., 633.'"

These cases leave in no doubt the proposition that the conferring of discretionary power upon administrative boards to grant or withhold permission to carry on a trade or business which is the proper subject of regulation within the police power of the State is not violative of rights secured by the 14th Amendment. There is no presumption that the power will be arbitrarily exercised and when it is shown to be thus exercised against the individual, under sanction of State authority, this court has not hesitated to interfere for his protection, when the case

has come before it in such manner as to authorize the interference of a Federal court. *Yick Wo* vs. *Hopkins*, 118 U. S., 356, 30 L. ed., 220, 6 Sup. Ct. Rep., 1064. In the case of *Jacobson* vs. *Massachusetts*, 197 U. S., 11, 49 L. ed., 643, 25 Sup. Ct. Rep., 358, it was insisted that the compulsory vaccination ordinance was broad enough to require a person to submit to compulsory vaccination when his physical condition might be such as to render such treatment dangerous to life and even cruelly oppressive. But it was held that the case presented no such situation; that the person complaining of the enforcement of the ordinance was, for aught that appeared, an adult in good health and a proper subject for vaccination; that the Supreme Court of Massachusetts had not sustained the authority of the board in the extreme case supposed, and that the individual complaining made no case wherein the operation of the statute deprived him of his constitutional right of protection. So, in the present case, there is nothing in this record to show why the permit which had been granted to the plaintiff was revoked or the conditions upon which, in the exercise of the power conferred by section 66, a permit to carry on the business was granted or withheld. It is true that a conversation was proved in which the milk inspector said to Lieberman that the milk sold by him 'stood well;' but there is nothing to show upon what ground the action of the board was taken. For aught that appears, he may have been conducting his business in such wise, or with such surroundings and means, as to render it dangerous to the health of the community; or his manner of selling or delivering the milk may have been objectionable. There is nothing in the record to show that the action against him was arbitrary or oppressive and without a fair and reasonable exercise of that discretion which the law reposed in the Board of Health. We have, then, an ordinance which, as construed in the highest court of the State, authorizes the exercise of a legal discretion in the granting or withholding of permits to transact a business which, unless controlled, may be highly dangerous to the health of the community, and no affirmative showing that the power has been exerted in so arbitrary and oppressive a manner as to deprive the appellant of his property or liberty without due process of law.

"In such cases it is the settled doctrine of this court that no Federal right is invaded, and no authority exists for declaring a law unconstitu-

tional, duly passed by the legislative authority, and approved by the highest court of the State. Nor do we think there is force in the contention that the plaintiff in error has been denied the equal protection of the laws because of the allegation that the milk business is the only business dealing in foods which is thus regulated by the Sanitary Code. All milk dealers within the city are equally affected by the regulations of the Sanitary Code. It is primarily for the State to select the kinds of business which shall be the subjects of regulation, and if the business affected is one which may be properly the subject of such legislation, it is no valid objection that similar regulations are not imposed upon other businesses of a different kind. *Soon Hing* vs. *Crowley*, 113 U. S., 703, 28 L. ed., 1145, 5 Sup. Ct. Rep., 736; *Fischer* vs. *St. Louis*, 194 U. S., 361, 48 L. ed., 1018, 24 Sup. Ct. Rep., 673.

"*We find no error in the judgment of the Supreme Court of New York, and the same is affirmed.*"

"Mr. Justice HOLMES—I do not gather from the statute or from the decision of the Court of Appeals that the action of the Board of Health was intended to be subject to judicial revision as to its reasonableness. But whether it was or was not, I agree that the statute, which in substance is older than the 14th Amendment, was not repealed or overthrown by the adoption of that amendment."

DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK, PLAINTIFF, *against* THE NEW YORK CITY RAILWAY COMPANY DEFENDANT.

This action was brought in the Municipal Court of The City of New York, Borough of Manhattan, for the Seventh District, to recover the sum of two hundred and fifty dollars against the City Railway Company, for failure to comply with an order requiring the abatement of noises on Amsterdam avenue caused by the running of cars having flat wheels. This is a condition in the wheel produced by the wheel slipping along the track so that the roundness in places is worn down flat, and each time the wheel revolves the flat surface of the wheel strikes the track making a noise as though the track was being hammered.

The case was tried in December, 1905, before Justice Worcester who, in deciding the case in favor of the department, handed down the following decision:

"The propriety of the order of the Board of Health is not reviewable in this action. The order was, in effect, that the railroad company should stop that noise on Amsterdam avenue. The testimony of various officials of the railroad company admit that the noise made by flat wheel-cars was made on several occasions after the issuance of the order. They do not show any attempt on the part of the railroad company, before such cars were put on the road, to ascertain whether they had flat wheels or not; it being claimed, however, that that fact could not be ascertained by any available means.

It seems to me that the remedy of the company, under such circumstances, was to apply to the Board of Health or to some other competent authority to modify the order, and I do not think that taking a car off the track as soon as the condition has developed, according to the testimony of the defendant, is a defense in this action. I feel, accordingly, obliged to order a judgment for the plaintiff in the sum of $250, but, that my determination may be readily reviewed, I grant a stay of execution for ten days."

POCHER *vs.* DEPARTMENT OF HEALTH.

This was an action by a taxpayer to restrain the awarding of an offal contract and to require the Board of Health to reconsider its action and show cause why a contract should not be awarded to the lowest bidder, namely, The Standard Manufacturing Company.

The department had the right under the Charter to award the contract in question, in its discretion, without advertising the same. One of the persons who filed a bid was the company just mentioned. Upon due investigation, it was found by the department that the company in question did not have the facilities for disposing of offal, night soil and dead animals, and that to award this contract to the Standard Manufacturing Company practically meant giving it the privilege to conduct an experiment in relation to the disposal of the substances in question, and concerning which reliable and responsible parties had

disposal plants in operation in parts of the city from which no valid objection could come and which had been subject to investigation by the department and were approved by it. The contracts were let therefore to the parties who had given the city general satisfaction in doing the work.

Mr. Justice Leventritt, of the Supreme Court, before whom the motion for a preliminary injunction was made to restrain the awarding of the contract, rendered the following decision in denying the motion made by the plaintiff for the injunction:

"The contract in question was not one which, as a matter of law, had to be let to the lowest bidder. Sections 1205 and 1206 of the Charter vest a discretion in the Board of Health in awarding contracts for the removal of refuse which is not controlled by the general provisions of section 419. In the award of other contracts the Board is subject to the same restrictions as other departments, but in the removal of offal, night soil and dead animals the Legislature has seen fit, and for reasons that readily suggest themselves, to vest a large discretion in the Board of Health. The section is not merely an emergency section, permitting the award to others than the lowest bidders in extreme cases or under extraordinary circumstances, but is most general in its terms, and if in conflict with section 419 would have to be given controlling force if for no other reason than that by its position in the Charter it is to be taken as the later enactment. The power vested in this public body being discretionary, the Court has no right to interfere, except under exceptional circumstances. 'Undoubtedly it will interfere when necessary to prevent fraud, injustice or the violation of a trust, and whenever it is shown that those in whom the discretion is vested are prepared illegally or corruptly to trample upon rights or sacrifice interests intrusted to their care then the Courts will interfere to prevent the consummation of a fraud' (O'Brien, *J.*, in Terrell *vs.* Strong, 14 Misc., 258, 261, 262). Is there such a charge of fraud here against the defendant the Department of Health? In the first place there would seem to be involved a serious question of pleading. The complaint is framed on the theory of waste and on the supposition that it was mandatory to let the contract to the lowest bidder. The allegation in the twelfth paragraph of the complaint 'that the award-

ing of said contracts * * * was an act of bad faith on the part of said Board of Health, a violation of the duties of said Board to the public and to the taxpayers of The City of New York and to the plaintiff' is a bare conclusion of law without supporting fact. In an analogous case a similar allegation has been held insufficient (Knowles *vs.* City of New York, 176 N. Y., 430, 437). Even conceding that the affidavits come to the aid of the pleader, they attack the motives of only one of the Board of Health, of the Commissioner of Health, leaving entirely unimpugned the motives of the remaining members of the Board, the Police Commissioner and the Health Officer of the Port. As the award of the contract was unanimous, and as there are no allegations of controlling influence by the Health Commissioner over his associates (Terrell *vs.* Strong, *supra*), it cannot be said that the charge of bad faith against the Department of Health, which is the designation by statute under which the Board of Health is to be sued (Charter, 1192), has been sustained. Nor would the Court be justified in saying that the charge against the Health Commissioner alone is made out. Accepting the allegations of the moving papers as true, with their necessary inferences, bad faith might be spelled out. The answering affidavits, however, deny the allegations that give rise to the inference and would entitle the plaintiff at most to an alternative writ were the action of the Health Commissioner alone the subject of inquiry. In any event there is not that established fraud which alone justifies a review of the discretion which undoubtedly vests in the Board. This is a taxpayer's action brought to restrain the waste of public funds and the case must be considered strictly on the principles applicable to that class of actions, without regard to the particular grievance of the unsuccessful bidder."

SCHLOERB AND OTHERS *against* THE DEPARTMENT OF HEALTH.

The Department found it necessary to establish a clinic for the treatment of tubercular patients in the Borough of Brooklyn, and determined that the most convenient place was at No. 75 Henry street in that borough. A number of residents in the locality objected to the clinic being established at the premises in question and commenced an action for the purpose of obtaining a permanent injunction against

establishing the clinic on Henry street. A preliminary injunction was granted by Mr. Justice Marean, restraining the Department from examining tubercular patients at the place selected by it. An appeal was taken from the injunction order to the Appellate Division of the Supreme Court, Second Department, and the latter Court decided the appeal August 31, 1905. The Court handed down the following opinion, the case being reported in 95 New York Supplement, page 1160:

"*Per Curiam*—While this Court entertains serious doubt as to the propriety of injunctive relief against a mere dispensary for the treatment of patients suffering from tuberculous disease, where the work of the institution is to be confined solely to an examination of the patients and the giving of prescriptions and advice, it is deemed best to allow the preliminary injunction to stand until all the facts in controversy can be fully developed upon the trial, where it may be made to appear that no such danger exists as the plaintiffs apprehend. The order appealed from will therefore be affirmed, on condition that the plaintiffs stipulate to try the case at the first Special Term for trials in Kings County, provided the defendant so desires. No costs of this appeal to either party."

The case has not yet been tried and disposed of on its merits.

OPINIONS.

In addition to legal advice which the Corporation Counsel is constantly called upon to give, he is also frequently asked to render written opinions upon questions affecting the Department and its work, and during the year a number of written opinions have been rendered of which the following is a brief summary:

March 9, 1905—An opinion was written in relation to the nuisance of flat wheels on the cars of the New York City Railway Company operated on Manhattan avenue, and the Board was advised of its powers and how to proceed for the abatement of the nuisance.

March 23, 1905—On the subject of sections 71, 73, 163 and 165 of the Labor Law of the State of New York, construing the said sections and advising the Board of the evidence of age it was necessary to present before an employment certificate can legally issue to a child applying for the same.

May 5, 1905—In relation to the execution of contracts for the removal of night soil, offal and dead animals in The City of New York.

May 26, 1905—In relation to appropriating moneys realized by the City upon the sale of Corporate Stock to the payment of furnishings for certain hospitals under the jurisdiction of this Department.

May 29, 1905—In relation to the application of the proceeds of an issue of special revenue bonds.

June 7, 1905—In relation to the employees at the news stands in the Subway stations, involving the construction of section 161 of the Labor Law and determining that said news stands were "mercantile establishments" within the meaning of the said Labor Law, and that its provisions applied to the news stands in question.

June 26, 1905—In relation to the power of the Board of Health to abate a smoke nuisance arising upon the waters adjacent to The City of New York, in which the Board was advised that it had such authority but determining that "it will be very necessary to show clearly that the discharge of smoke is either a public nuisance or in some manner detrimental to health."

July 21, 1905—An opinion and also a proposed ordinance to be introduced in the Common Council authorizing the acquisition of a site for an office building, clinic and stable in the Borough of Brooklyn.

August 3, 1905—In relation to the necessity of obtaining the approval of the State Board of Health to the site selected for a tuberculosis sanatorium at Otisville, in the Township of Mount Hope, Orange County, New York, and advising the Board that the law requiring such approval had not been repealed and that chapter 327 of the Laws of 1900 would have to be complied with.

November 17, 1905—In relation to the issuance of orders by the Board of Health under the power conferred upon the Board by Section 1176 of the Charter, and determining that no authority existed for issuing a "forthwith order," and that when orders were issued the party to whom they were directed had five days in which to comply with the same.

November 29, 1905—In relation to the authority of the Board to require children attending the public schools to submit to a physical

examination and determining that the Board of Health has such power if the examination is conducted for the benefit of the public health.

December 20, 1905—In relation to the discharge of smoke from the factory of the New York Glucose Company at Shadyside, New Jersey, to the annoyance of residents of New York City, and determining that the Board had authority to issue and enforce, in the usual manner, an order requiring the abatement of the nuisance in question.

LAWS AFFECTING THE DEPARTMENT PASSED IN 1905.

CHAPTER 454.

By this statute an amendment was made to the Public Health Law, and it was made unlawful for any person to maintain a bathing establishment of any kind, for the accommodation of persons for pay, at a point less than 500 feet from any sewer connection emptying therein, so as to pollute in any way, the waters used by the persons using or hiring bathing houses at such bathing establishment; it was also made the duty of the person maintaining such establishment to provide separate toilet rooms, with waterclosets properly provided with sanitary plumbing, to be constructed in a manner approved by the Board of Health and in such a way as not to contaminate the waters used by the bathers; it is also made the duty of the person maintaining such establishment to thoroughly wash and disinfect, in a manner approved by the local Board of Health, all bathing suits that have been hired or used, before rehiring or permitting the use of the same again.

CHAPTERS 493 and 518.

The Labor Law was amended in relation to proof of age of a child applying for an employment certificate.

Before the amendment, it was necessary to prove the age of a child by a passport or duly attested transcript of the certificate of birth, or by a certificate of baptism or other religious record showing the date and place of birth of the child. It was found in many cases where the authorities were satisfied that a child was in fact over fourteen years of age, that the age could not be proved by any of the documents specified

in the law as it stood before 1905. The act was therefore amended by providing that if none of the papers mentioned exists or can be produced, then the officer to whom application is made shall present a statement to the Board of Health signed by him showing such facts, together with such affidavits or papers as may have been produced before him constituting the evidence of the age of the child, and the statute authorized the Board of Health, in its discretion, in a proper case, by resolution, to provide that such evidence of age shall be fully entered on the minutes of the Board and shall be received in place of the papers theretofore required.

CHAPTER 532.

By this law sections 1237, 1238, 1239, 1240 and 1266 of the Greater New York Charter, being provisions in relation to reporting births, etc., to the Department of Health, were amended to meet the decision of the Appellate Division of the Supreme Court rendered May 13, 1904, in an action brought by the Department of Health against William W. Owen (94 App. Div., 425). This action was brought to recover a penalty against the defendant, a physician, for his alleged failure to report the birth of a child. His defense was that he had mailed the certificate to the Department of Health, and it was found upon the trial that the certificate never reached the Department. The appeal was decided by a divided court, three to two, in favor of the physician, the learned Chief Justice Van Brunt and associate Mr. Justice Laughlin, dissenting. The learned Presiding Justice said the statute was in no way complied with by mailing the certificate. The dissenting opinion of Mr. Justice Laughlin, concurring with the Presiding Justice, has been frequently referred to and by reason of the important observations he made, his opinion is made a part of this report and is as follows:

"I am of opinion that the Legislature intended to make it the duty of a physician not only to make out and keep a register of the births he has attended professionally, but also to see to it that a copy of the entry in such register concerning a birth reaches the Department of Health within 10 days. Of course, it is not necessary that he should present it in person. He may employ the mails, or any agency, for the purpose of transmission; but in that event he must, by inquiry or other-

wise, ascertain that it has reached its proper destination within the time prescribed therefor by the statute. The language employed is fairly susceptible of this construction, and the efficiency of the statute requires it. The construction given in the prevailing opinion opens the door to collusion and corruption, and will render the law ineffectual. Physical or mental inability to comply with the law would doubtless be a defense to a prosecution for the penalty; but in the absence of such disability it was clearly competent for the Legislature to require an individual practicing a profession requiring a license to perform, as a condition of his right to practice his profession, an act manifestly justified by public policy, and essential to the enforcement of the criminal laws and to the establishment, preservation, and enforcement of personal and property rights. This construction of the statutes relating to the filing of certificates of births, marriages and deaths will not impose an onerous burden upon the practitioner who wishes to comply with the law. If he sends the certificate through the mail, or otherwise than by a personal delivery, he may readily ascertain by telephonic communication whether it has been received, and there should be no difficulty in having an understanding with the Department of Health that the receipt of such certificate will be timely acknowledged. The reputable, careful practitioner will take pride in observing the law. The penalty was only necessary to compel compliance by the disreputable and negligent members of the profession. It is no reflection on the medical profession, the great body of whom are conscientious, upright citizens, to say that in it as in all other professions there are unfortunately some who could, for a sufficient consideration, be induced to omit filing a certificate of death, marriage or birth. The construction I have indicated will remove this temptation, and will naturally insure the accuracy and completeness of the official records."

By the amendment made by chapter 532, a physician or other person reporting a birth, is obliged to see that the same is filed with the Department and takes the risk upon himself of sending a certificate through the mails.

During the year the Sanitary Code was amended upon one occasion only, the following section having been adopted on February 15, 1905:

"Section 108. It shall be the duty of every owner, tenant, lessee, occupant, or person in charge of any and every building, or place of business in the generally built-up portions of The City of New York, forthwith to provide or cause to be provided, and at all times thereafter to keep and cause to be kept and provided, within such building or place of business, and for the exclusive use of such building or place of business, separate receptacles for receiving and holding, without leakage, all the ashes, garbage, and liquid substances that may accumulate during thirty-six hours, from said building or place of business, or the portion thereof of which such person may be the owner, tenant, lessee, occupant or in charge, and every such receptacle designed and used to hold ashes shall be made of or lined with some suitable metal.

"And it shall be the duty of every owner, lessee or agent of any such building or place of business to cause to be separated and put into their respective receptacles all such materials and substances and such receptacles shall not be filled to within four inches of the top thereof.

"And such receptacles, as well as any light refuse or rubbish to be removed, shall be kept within the premises until the proper time for removal, and shall then be placed in the area, or within the stoop-line only, and shall there remain until such materials or substances are removed by the Department of Street Cleaning, but in no case shall such receptacles be placed where they shall be or become a nuisance.

"All light refuse or rubbish, likely to be scattered or blown about, shall, before being placed outside of any building or premises for removal, be properly bundled, packed or otherwise secured."

STATEMENT OF WORK PERFORMED IN THE SANITARY BUREAU DURING THE YEAR 1905.

The Sanitary Bureau of the Department of Health is under the charge of the Sanitary Superintendent, assisted by five Assistant Sanitary Superintendents, one in charge of each borough.

The following is a summary of the operations of the Sanitary Bureau, which is charged with the duty of inspecting and reporting, in proper form, all nuisances or causes of danger to the public health; with the execution of the orders of the Board; with the care of contagious diseases; with the inspection of foods and offensive trades; with the inspection of mercantile establishments and issuance of employment certificates; with the pathological, bacteriological and chemical research and investigations, and with the inspection of scholars attending the public, parochial and private schools:

The number of inspections and reinspections made was 2,011,519. classified as follows:

By the Division of Inspection	1,376,923
By the Division of Contagious Diseases	562,560
By the Division of Communicable Diseases	70,091
By the Division of Laboratories	1,945
Total	2,011,519

The number of complaints forwarded for Board's orders was 28,987, classified as follows:

By the Division of Inspection	27,462
By the Division of Contagious Diseases	306
By the Division of Communicable Diseases	1,219
Total	28,987

The number of complaints received from citizens was 34,017, all of which were referred to the Inspectors and the Sanitary Police for investigation and report.

The Sanitary Superintendent during the same period, under instructions and authority of the Board, granted 3,982 permits to discharge cargoes, under proper vouchers from the Health Officer of the Port, and 14,179 miscellaneous permits, under the Sanitary Code.

The following is a tabulated list, by Boroughs, of the number of stables, horses and cows in the City of New York during the year 1905:

Borough.	No. of Stables.	No. of Horses.	No. of Cows.
Manhattan	3,766	76,808	112
Brooklyn	5,198	36,638	1,549
The Bronx	1,117	6,519	556
Queens	1,788	4,459	3,030
Richmond	1,255	3,359	1,598
City of New York	13,124	127,783	6,845

The following is a tabulated statement, by months, of the number of horses that died in this City during the years 1873 to 1905, inclusive:

Number of Horses That Died in The City of New York, from 1873 to 1905, Inclusive.

MONTHS.	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.
January....	415	500	381	485	485	346	404	395	592	561	475	590	457	467	634	786	469	507	618	809	683	661	634
February ..	272	622	330	380	443	378	402	411	514	613	466	556	429	594	678	868	478	489	572	610	675	494	711
March.	313	744	458	387	422	363	354	467	675	678	598	735	473	850	811	1,031	591	588	724	651	1,101	657	727
April	461	451	526	348	480	352	388	469	666	671	487	612	472	598	648	1,072	570	666	686	606	809	612	695
May.	346	512	366	354	422	362	436	469	544	594	469	538	457	639	676	913	535	580	559	706	586	489	690
June.	365	432	369	391	276	341	439	448	470	461	552	509	523	513	766	863	567	578	620	783	673	565	721
July	733	406	481	792	400	497	482	649	505	583	656	505	671	597	1,033	596	603	658	620	940	791	715	703
August	513	428	508	540	496	419	504	512	626	549	513	518	648	707	1,010	734	675	835	839	1,314	803	797	842
September.	605	373	510	435	569	458	384	562	660	527	490	704	601	709	715	588	643	752	868	774	814	718	783
October. ...	450	378	738	429	509	464	389	784	729	479	549	465	591	642	816	627	698	838	834	690	758	663	793
November..	1,638	310	473	370	502	355	456	489	722	513	493	427	534	580	749	547	653	638	620	575	684	611	605
December..	665	427	354	359	345	369	400	455	663	528	508	412	560	646	743	528	574	627	700	618	755	618	579
Totals..	6,776	5,583	5,494	5,270	5,349	4,704	5,038	6,110	7,366	6,757	6,256	6,571	6,416	7,533	9,279	9,153	7,056	7,756	8,260	9,076	9,132	7,600	8,483

Number of Horses That Died in The City of New York, from 1873 *to* 1905, *Inclusive*—(Continued).

MONTHS.	† 1896.	† 1897.	* 1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
January.....	....	....	952	906	864	1,045	1,354	1.698	1,701	1,719
February.....	....	...	982	974	849	1,128	1,363	1.353	1.62a	1,808
March	....	....	1,087	875	1,199	1.334	1,975	1.403	1.498	1,856
April.	....	....	1,008	929	888	1,214	1.377	1.373	1,564	1,849
May	....	....	778	954	1,008	1,133	1,465	1.383	1,313	1,209
June	....	....	969	904	1,304	1,388	1,091	1,030	1.243	1,524
July.....	....	....	933	1,295	2,260	2,461	1,282	1.471	1.553	2,130
August.....	...	....	1,207	1,502	1.342	2,300	1.751	1.625	1,562	1,882
September.....	....	....	1,453	1,500	1,205	2,580	1,521	1,506	1.646	2,189
October.....	....	....	1,112	1,232	1,406	1,804	1,656	1,869	1,740	1,941
November.....	....	....	1,147	1,437	1,215	1.708	1,594	1,414	1,417	1,639
December.....	....	....	1,233	1,207	1,307	1,751	1,465	1,450	1,715	1,844
Totals	10,492	7,361	12,861	13,805	14,847	19,846	17,894	17,575	18,589	21,590

† Records destroyed by fire. * Greater New York.

The following tabulated statement and summary shows the date, location, cause of action and the result of vacation of premises by the Board of Health, in compliance with the requirements of sections 1176 and 1299 of the Laws of 1901:

Borough of Manhattan.

No.	Date.	Location.	Cause.	Result.
1	Jan. 18	No. 6 James slip	Defective plumbing	Complied Feb. 1.
2	" 25	No. 217 West Twenty-fifth street	"	" " 20.
3	" 25	No. 72 Monroe street	"	" " 6.
4	" 25	No. 460 West Fortieth street.	"	" Mar. 17.
5	" 25	No. 248 East Broadway	"	" Apr. 28.
6	Feb. 1	No. 2 Convent avenue	"	" Feb. 3.
7	" 8	No. 38 Division street	Public nuisance	" Mar. 17.
8	" 8	No. 15 Bleecker street	"	" " 14.
9	" 15	No. 24 Bleecker street	"	" Feb. 24.
10	" 15	No. 175 East One Hundred and Twenty-second street	Defective plumbing	" Mar. 17.
11	" 15	No. 307 West Twenty-seventh street	"	" " 6.
12	" 15	No. 217 West Twenty-second street	"	" Apr. 12.
13	Mar. 15	No. 98 Avenue C	"	" " 5.
14	" 22	No. 1230 First avenue	Public nuisance	" " 11.
15	" 22	No. 1232 First avenue	"	" " 11.
16	" 22	No. 638 East Twelfth street, front and rear	"	" June 14.
17	" 22	No. 267 Bowery	"	" Apr. 1.
18	" 22	No. 38 West Twentieth street	Defective plumbing	" May 4.
19	" 22	No. 323 West Twentieth street	Defective plumbing and defective drainage	" Apr. 5.
20	Apr. 5	No. 508 West Fifty-sixth street	Public nuisance	" May 9.
21	" 5	No. 205 East Eightieth street.	Defective plumbing	Work progressing.
22	" 19	No. 1051 Lexington avenue	"	Complied June 22.
23	" 19	No. 743 Lexington avenue	"	" May 2.
24	May 10	No. 183 Bleecker street	"	" June 22.
25	" 10	No. 653 Lexington avenue	"	" May 20.
26	" 10	No. 367 First avenue (rear)	Public nuisance	Work progressing.
27	" 10	No. 367 First avenue (front)	Defective plumbing	"
28	" 24	No. 408 East One Hundred and Twenty-fifth street	Public nuisance	Complied Aug. 7.
29	June 7	No. 110 East Tenth street	Defective plumbing	" July 14.
30	" 22	No. 332 East Twenty-eighth street	Public nuisance	" Aug 5.
31	" 22	No. 334 East Twenty-eighth street	"	" " 5.
32	" 22	No. 336 East Twenty-eighth street	"	" " 5.

No.	Date.	Location.	Cause.	Result.
33	June 22	No. 338 East Twenty-eighth street	Public nuisance	Complied Aug. 5.
34	" 22	No. 340 East Twenty-eighth street	"	" " 5.
35	" 22	No. 326 Monroe street	Defective drainage	Work progressing.
36	" 22	No. 985 Lexington avenue	"	Complied Aug. 9.
37	" 22	No. 987 Lexington avenue	"	" " 9.
38	" 22	No. 989 Lexington avenue	"	" " 9.
39	" 22	No. 991 Lexington avenue	"	" " 9.
40	July 19	No. 80 Park row	Defective plumbing and defective drainage	" Oct. 30.
41	" 26	No. 439 West Twenty-seventh street	Defective plumbing and defective drainage	Work progressing.
42	" 26	No. 100 Hester street	Public nuisance	Complied Nov. 17.
43	" 26	No. 197 Lewis street	"	" Aug. 29.
44	" 26	No. 613 West Forty-ninth street	"	" Oct. 10.
45	Aug. 9	No. 11 Chatham square	Defective plumbing and defective drainage	" " 17.
46	" 9	No. 12 Chatham square	Defective plumbing and defective drainage	" " 17.
47	" 9	No. 133 East One Hundred and Eighteenth street	Defective plumbing and defective drainage	Not complied with.
48	" 9	No. 2007 Lexington avenue	Defective drainage	Complied Aug. 16.
49	" 9	No. 142 West Thirty-second street	Defective plumbing	" Dec. 15.
50	" 9	No. 351 Pleasant avenue	"	" Aug. 28.
51	Sept. 6	No. 62 Attorney street (rear)	Public nuisance	" Oct. 31.
52	" 6	No. 201 Allen street	"	" " 31.
53	" 6	No. 31 Crosby street	Defective plumbing and defective drainage	Rescinded Dec. 20.
54	" 6	No. 17 Avenue D	Defective plumbing	Complied Oct. 10.
55	" 6	No. 241 Third avenue	"	Work progressing.
56	" 13	Alley rear of No. 49 Sheriff street	Public nuisance	Complied Oct. 25.
57	" 13	Alley rear of No. 51 Sheriff street	"	" " 25.
58	" 13	Alley rear of No. 53 Sheriff street	"	" " 25.
59	" 13	Alley rear of No. 55 Sheriff street	"	" " 25.
60	" 13	Alley rear of No. 57 Sheriff street	"	" " 25.
61	" 13	Alley rear of No. 54 Willett street	"	" " 25.
62	" 13	Alley rear of No. 56 Willett street	"	" " 25.
63	" 13	Alley rear of No. 58 Willett street	"	" " 25.
64	Oct. 11	No. 183½ Division street	Defective plumbing and defective drainage	Work progressing.
65	" 11	No. 183 Division street	Defective plumbing and defective drainage	"
66	Nov. 1	No. 1337 Avenue "A" (front)	Defective plumbing	"
67	" 1	No. 1337 Avenue "A" (rear)	Public nuisance	"
68	Dec. 6	One Hundred and Eighty-sixth street, 200 feet east of Amsterdam avenue	"	"
69	" 6	One Hundred and Sixty-ninth street, 250 feet west of Broadway	"	Extended to Feb. 25, 1906.

No.	Date.	Location.	Cause.	Result.
70	Dec. 6	North side West One Hundred and Nineteenth street, 100 feet east of Amsterdam avenue and extending 50 feet east....	Public nuisance.....	Complied Dec. 20.
71	" 6	No. 9 Catharine Slip.....	Defective plumbing and defective drainage	" " 27.
72	" 20	West End Theatre, No. 368 West One Hundred and Twenty-fifth street.....	Defective construction.....	Work progressing.
73	" 20	No. 321 East One Hundred and Sixteenth street.....	Defective plumbing and defective drainage.	"

Borough of Brooklyn.

No.	Date.	Location.	Cause.	Result.
1	Jan. 18	No. 454 Ralph avenue.....	Defective plumbing and defective drainage.	Vacated Feb. 27; not complied with.
2	" 18	No. 524 Vanderbilt avenue....	Nuisance	Complied Mar. 29.
3	" 25	No. 3 Lawrence street.....	Defective drainage.....	" Apr. 25.
4	" 25	No. 5 Lawrence street.....	"	" " 25.
5	" 25	No. 126 Smith street.....	Defective plumbing	" " 17.
6	" 25	No. 5 Harper court.....	Defective plumbing and defective drainage.	" Mar. 27.
7	" 25	No. 6 Harper court.....	Defective plumbing and defective drainage.	" " 27.
8	" 25	No. 7 Harper court.....	Defective plumbing and defective drainage.	" " 27.
9	" 25	No. 8 Harper court.....	Defective plumbing and defective drainage.	" " 27.
10	" 25	No. 9 Harper court.....	Defective plumbing and defective drainage.	" " 27.
11	" 25	No. 10 Harper court.....	Defective plumbing and defective drainage.	" " 27.
12	" 25	No. 11 Harper court.....	Defective plumbing and defective drainage.	" " 27.
13	" 25	No. 12 Harper court.....	Defective plumbing and defective drainage.	" " 27.
14	" 25	No. 13 Harper court.....	Defective plumbing and defective drainage	" " 27.
15	" 25	No. 14 Harper court.....	Defective plumbing and defective drainage	" Feb. 27.
16	" 25	No. 15 Harper court.....	Defective plumbing and defective drainage.	" Mar. 27.
17	" 25	No. 16 Harper court.....	Defective plumbing and defective drainage.	" Feb. 27.
18	" 25	No. 19 Harper court	Defective plumbing and defective drainage.	" Mar. 27.
19	" 25	No. 11 Hennessy place.....	Defective drainage.....	" Apr. 3.
20	" 25	No. 13 Hennessy place..... ...	"	" " 3.
21	" 25	No. 15 Hennessy place.....	"	" Mar. 27.
22	" 25	No. 17 Hennessy place.....	"	" Apr. 3.
23	" 25	No. 19 Hennessy place.....	"	" Mar. 27.
24	" 25	No. 21 Hennessy place.....	"	" " 27.
25	" 25	No. 23 Hennessy place.....	"	" Apr. 3.
26	" 25	No. 192 Bergen street.....	Public nuisance	" Sept. 1.
27	" 25	No. 194 Bergen street.....	"	" " 1.

No.	Date.	Location.	Cause.	Result.
28	Feb. 1	No. 260 Flushing avenue.....	Public nuisance	Complied May 8.
29	" 1	No. 262 Flushing avenue.....	"	" " 8.
30	" 1	No. 264 Flushing avenue.....	"	" " 8.
31	" 1	No. 266 Flushing avenue.....	"	" " 8.
32	" 1	No. 268 Flushing avenue.....	"	" " 8.
33	" 1	Hall street, north of Myrtle avenue, viz.; Nos. 132-134 Hall street	"	Vacated Apr. 21; not complied with.
34	" 1	No. 943 Herkimer street.....	Defective plumbing.....	Complied Mar. 20.
35	" 1	No. 14 President street.....	"	" Apr. 17.
36	" 1	No. 101 Union street.....	"	" " 24.
37	Mar. 15	No. 379 Graham avenue	"	" May 11.
38	" 15	No. 381 Graham avenue	"	" " 11.
39	" 22	No. 224 East New York avenue.....	Defective plumbing and defective drainage.....	" Oct. 23.
40	" 22	No. 226 East New York avenue	Defective plumbing and defective drainage.....	" " 23.
41	" 22	No. 245 North Seventh street	Defective plumbing and defective drainage	" Apr. 20.
42	" 22	No. 70 Sedgwick street	Public nuisance	Complied July 10.
43	" 22	No. 72 Sedgwick street	"	" " 10.
44	" 22	No. 74 Sedgwick street	"	" " 10.
45	" 22	No. 163 Twenty-seventh street.	"	" June 12.
46	" 22	No. 165 Twenty-seventh street.	"	" " 12.
47	" 22	No. 167 Twenty-seventh street.	"	" " 12.
48	" 22	No. 257 Fourth avenue.....	"	Work progressing.
49	Apr. 5	No. 1059 De Kalb avenue	Defective plumbing	Complied May 10.
50	" 5	No. 518 Fiftieth street.....	"	" " 15.
51	May 3	No. 410 Baltic street.....	Public nuisance	Vacated Oct. 14; not complied with.
52	" 3	Rear of No. 44 Columbia street (a)	Defective plumbing	Complied July 31.
53	" 3	Rear of No. 44 Columbia street (b)	"	" " 31.
54	" 3	No. 25 Montauk avenue	"	Work progressing.
55	" 3	No. 422 Columbia street.....	Public nuisance	Complied June 16.
56	" 3	No. 46 Prince street (front)..	Defective drainage	Vacated April 29; not complied with.
57	" 3	No. 48 Prince street.....	"	Vacated April 29; not complied with.
58	" 10	No. 46 Prince street (rear)....	"	Vacated April 29; not complied with.
59	" 10	No. 253 Prospect avenue.....	Public nuisance	Complied Oct. 9.
60	" 10	No. 255 Prospect avenue.....	"	" " 9.
61	" 10	No. 289 Prospect avenue.....	"	" Nov. 6.
62	" 10	No. 291 Prospect avenue.....	"	" " 6.
63	" 17	No. 260 Grand street.....	Defective plumbing and defective drainage.....	Complied June 21.
64	" 17	No. 256 Forty-third street.....	Conditions liable to cause illness...	" May 27.
65	" 17	No. 111 Thirteenth street.....	Defective drainage.....	" July 3.

No.	Date.	Location.	Cause.	Result.
66	May 24	No. 22 Vanderbilt avenue.....	Defective plumbing	Complied July 11.
67	June 14	No. 198 Varet street.....	Public nuisance.....	Vacated July 10; not complied with.
68	" 14	No. 200 Varet street.....	"	Vacated July 10; not complied with.
69	" 14	No. 105 Debevoise street.....	"	Complied Oct. 23.
70	July 26	No. 226 Thirty-ninth street...	"	" Aug. 29.
71	" 26	No. 221 Bush street.....	Public nuisance and defective drainage.....	Work progressing.
72	" 26	No. 223 Bush street.....	Public nuisance and defective drainage.....	"
73	" 26	No. 227 Bush street.....	Public nuisance and defective drainage.....	"
74	" 26	No. 225 Bush street.....	Defective drainage.....	Complied Sept. 2.
75	" 26	No. 205 Bush street.....	"	Work progressing.
76	" 26	No. 219 Bush street.....	"	"
77	" 26	No. 74 Bush street.....	"	Complied Nov. 27.
78	" 26	No. 6 Tenth avenue.....	"	" Sept. 27.
79	" 26	No. 10 Tenth avenue	"	" " 27.
80	" 26	No. 266 Twelfth street.....	"	" Aug. 6.
81	" 26	No. 268 Twelfth street.....	"	" " 6.
82	" 26	No. 24 Luqueer street.....	"	Vacated Aug. 17; not complied with.
83	Aug. 9	No. 309 North Seventh street.	Defective plumbing.....	Vacated Sept. 28; not complied with.
84	" 9	No. 351 Flushing avenue.....	Defective drainage.....	Complied Sept. 21.
85	" 9	No. 297 Bedford avenue.....	Defective plumbing.....	" " 7.
86	" 9	No. 211 Bush street.....	Defective drainage and public nuisance.....	Work progressing.
87	" 9	Hyde & Behman's Theatre, No. 342 Adams street....	Defective construction	Complied Nov. 24.
88	" 9	Gotham Theatre, corner Fulton and Alabama avenues	"	" Sept. 26.
89	" 9	Unique Theatre, Nos. 194-6 Grand street.....	"	Not complied with.
90	" 9	Keeney's Theatre, Fulton street and Grand avenue.	"	Work progressing.
91	" 9	Majestic Theatre, No. 651 Fulton street.....	"	Complied Aug. 17.
92	" 9	Novelty Theatre, No. 780 Driggs avenue.....	"	Work progressing.
93	" 9	Gayety Theatre, Broadway and Throop avenue.....	"	"
94	" 9	Park Theatre, No. 383 Fulton street.....	"	Complied Nov. 10.
95	" 9	Orpheum Theatre, corner Fulton street and Rockwell place.....	"	" Oct. 30.
96	" 9	Payton's Theatre, Nos. 25-31 Lee avenue.....	"	Work progressing.
97	" 9	Bijou Theatre, No. 28 Smith street.....	"	Not complied with.
98	" 9	Garden Theatre, Nos. 742-6 Manhattan avenue.....	"	Complied Nov. 17.
99	" 9	Star Theatre, No. 389 Jay street.....	"	" Nov. 3.
100	" 9	Broadway Theatre, Stockton street and Broadway.	"	" Sept. 2.
101	" 9	Grand Opera House, No. 16 Elm place	"	" Nov. 28.
102	" 9	Amphion Theatre, No. 439 Bedford avenue.....	"	Not complied with.
103	" 9	Columbia Theatre, Washington and Tillary streets	"	Complied Nov. 4.

No.	Date.	Location.	Cause.	Result.
104	Aug. 9	Folly Theatre, No. 27 Graham avenue	Defective construction	Complied Nov. 29.
105	Sept. 6	East side of Elton street, 145 feet north of Worthman avenue	Public nuisance	Work progressing.
106	" 6	Old Mill road, 100 feet west of Berriman avenue	"	Vacated Nov. 15; not complied with.
107	" 6	Worthman avenue and Essex street	"	Work progressing.
108	" 6	No. 287 Meserole street	"	Not complied with.
109	" 6	No. 37 Benton street	"	Vacated Dec. 13; not complied with.
110	" 6	No. 45 Parker street	"	Complied Nov. 28.
111	" 6	Benton street east of Morgan avenue	"	" " 28.
112	" 6	No. 39 Benton street	"	Vacated Dec. 13; not complied with
113	" 6	No. 51 Dean street	Nuisance	Complied Sept. 29.
114	" 6	No. 580 Rockaway avenue	Defective drainage	Vacated Sept. 18; not complied with.
115	" 6	No. 28 Schenck avenue	"	Vacated Sept. 18; not complied with.
116	" 6	Northeast corner Dean and Smith streets (No. 131 Smith street)	Defective plumbing and defective drainage	Not complied with.
117	" 6	No. 238 Bond street	Defective drainage	Work progressing.
118	" 6	North side Linwood street, 165 feet south of Stanley road	Public nuisance	Vacated Oct. 17; not complied with.
119	" 6	West side Cleveland street, 140 feet south of Worthman avenue	"	Work progressing.
120	" 6	Linwood street, near Worthman avenue	"	"
121	" 6	Corner Shepherd and Worthman avenues	"	"
122	" 6	No. 1846 Bergen street	"	"
123	" 6	No. 604 Johnson avenue	"	Complied Nov. 15.
124	" 6	No. 786 Logan street	"	Vacated Dec. 16; not complied with.
125	" 6	No. 394 South Fifth street	Public nuisance and defective plumbing and defective drainage	Complied Nov. 13.
126	" 6	No. 396 South Fifth street	Public nuisance	" " 13.
127	" 6	No. 342 Bond street	"	" Oct. 25.
128	" 6	No. 344 Bond street	"	" " 25.
129	" 6	No. 95 Franklin street	"	Vacated Dec. 22; work progressing.
130	" 6	No. 9 Filmore place	"	Vacated Nov. 20; work progressing.
131	" 6	No. 262 Grand street	"	Complied Dec. 14.
132	" 6	No. 901 Bedford avenue	"	" Oct. 16.
133	" 6	East side Christopher avenue, between East New York and Liberty avenues	"	Vacated Oct. 24; not complied with.
134	" 6	No. 1427 Broadway	Defective plumbing	Complied Sept. 27.
135	" 6	Rear of No. 1342 St. Mark's avenue	Defective drainage	Vacated Oct. 13; work progressing.
136	" 6	No. 712 Hendrix street	Public nuisance	Work progressing.
137	" 6	North side, Worthman avenue, west of Linwood street	"	"
138	" 13	Bay Ridge and Seventh avenues	"	Vacated Nov. 15; not complied with.

No.	Date.	Location.	Cause.	Result.
139	Sept. 13	Thirty-ninth street, between Eighth and Ninth avenues	Public nuisance	Work progressing.
140	" 13	Thirty-seventh street, between Eighth and Ninth avennes	"	"
141	" 13	Second house, rear of No. 8038 Bay Twenty-first street or Nineteenth avenue	Defective drainage	Complied Dec. 20.
142	" 13	Rear of No. 8038 Bay Twenty-first street, or Nineteenth avenue	"	" " 21.
143	" 13	No. 870 Franklin avenue	"	Vacated Oct. 18; not complied with.
144	" 13	No. 870 Franklin avenue	"	Vacated Oct. 18; not complied with.
145	" 13	No. 8038 Bay Twenty-first street, or Nineteenth avenue	"	Work progressing.
146	" 13	No. 127 Montgomery avenue	"	Vacated Nov. 16; not complied with.
147	" 13	Northeast corner Eighth avenue and Forty-second street	Public nuisance	Work progressing.
148	" 13	Southwest corner Minna and Chester avennes	"	Not complied with.
149	" 13	Rochester avenue, south of East New York	"	Vacated Dec. 18; not complied with.
150	" 13	Clarkson and East Fifty-third streets	"	Work progressing.
151	" 13	East Ninety-third and Tulip streets	"	Vacated Dec. 15; not complied with.
152	" 13	West side Forty-eighth street, between Eighth and Ninth avennes	"	Work progressing.
153	" 13	No. 111 Eighth street	"	Complied Nov. 27.
154	" 13	Rochester avenue, east of East New York avenue	"	Vacated Nov. 8; complied Dec. 29.
155	" 20	Old Mill Landing	"	Vacated Nov. 29; not complied with.
156	" 20	West side East Ninety-third street, between Tulip and East New York avennes	"	Vacated Nov. 29; not complied with.
157	" 20	No. 3917 Eighth avenue	"	Not complied with.
158	" 20	Enfield street, between Dumont and Blake avennes	"	Vacated Dec. 13; not complied with.
159	" 20	Hemlock street and Hegeman avenue	"	Vacated Dec. 29; complied Dec. 29.
160	" 20	Grand and Dumont avennes	"	Vacated Dec. 16; not complied with.
161	" 20	No. 37 Benton street	"	Vacated Dec. 13; not complied with.
162	" 20	No. 82 Bamett street	"	Vacated Dec. 13; not complied with.
163	" 20	Enfield street, near Blake avenue	"	Vacated Dec. 16; complied Dec. 29.
164	" 20	Enfield street, near Blake avenue	"	Vacated Dec. 16; not complied with.
165	" 20	Old Mill Landing	"	Vacated Dec. 18; not complied with.
166	" 20	Enfield street, between Dumont and Sutter avennes	"	Vacated Dec. 16; not complied with.
167	" 27	East Forty-sixth street, near Rutland road	"	Work progressing.
168	Sept. 27	105 Debevoise street (rear)	Defective drainage	Complied Oct. 23.
169	" 27	1448 Pitkin avenue	Public nuisance	Vacated Dec. 11; not complied with.
170	" 27	Lefferts street near Brooklyn avenue	"	Vacated Nov. 15; not complied with.
171	" 27	Southeast corner Montgomery street and New York avenue	"	Vacated Dec. 5; not complied with.
172	" 27	Barley street near Vienna avenue	"	Vacated Dec. 5; complied Dec. 29.
173	" 27	Southeast corner Malbone street and New York avenue	"	Vacated Dec. 5; not complied with.

No.	Date.	Location.	Cause.	Results.
174	Sept. 27	East Ninety-eighth street, between Winthrop and Clarkson streets	Public nuisance	Vacated Dec. 16; not complied with.
175	" 27	East New York and Ralph avenues	"	Vacated Dec. 6; complied Dec. 29.
176	Oct. 11	Pennsylvania and Vienna avenues	"	Not complied with.
177	" 11	Hegeman and Louisiana avenues	"	"
178	" 11	Sheridan and McKinley avenues	"	"
179	" 11	Warehouse and Williams avenues	"	Vacated Dec. 14; not complied with.
180	" 11	Sheffield avenue, near Cozine avenue	"	Vacated Dec. 6; complied Dec 26.
181	" 11	No. 487 Lorimer street	Defective plumbing and defective drainage	Vacated Nov. 16; not complied with.
182	" 11	No. 178 Nassau street	Public nuisance	Work progressing.
183	" 11	No. 319 Bridge street	Defective plumbing and defective drainage	"
184	" 11	No. 144 York street	Defective drainage	"
185	" 11	No. 143 Concord street	"	Vacated Nov. 17; not complied with.
186	" 11	No. 104 Lawrence street (rear)	"	Complied Dec 19.
187	" 11	New Jersey and Worthman avenues	Public nuisance	Not complied with.
188	" 11	Warehouse and Williams avenues	"	Vacated Dec. 14; not complied with.
189	Nov. 1	Forty-fourth street, first house west of Eighth avenue	Defective drainage	Complied Nov. 13.
190	" 22	Montauk Theatre, No. 585 Fulton street	Defective construction	Not complied with.
191	Dec. 6	Lincoln avenue, near Glenn street	Public nuisance	"
192	" 20	Trochelman's lane and East One Hundred and First street	"	"
193	" 20	Avenue K and East One Hundredth street	"	"
194	" 20	Trochelman's lane, between East Ninety-ninth and One Hundredth streets	"	"
195	" 20	East One Hundredth street, between Avenues "I" and "J"	"	"
196	" 20	West side of Rockaway avenue and Ames lane	"	"
197	" 20	Canarsie lane and East Ninety-second street	"	"
198	" 30	No. 283 Tillary street	Defective drainage	Work progressing.
199	" 30	No. 704 Henry street	"	Not complied with.
200	" 30	Pellington street, between Bushwick avenue and Highland Boulevard	Public nuisance	Work progressing.
201	" 30	Northwest corner St. Edwards and Tillary streets	"	Not complied with.
202	" 30	Northeast corner Ovington and Sixth avenues	"	Work progressing.
203	" 30	Ninetieth street and Gatling place	"	Not complied with.
204	" 30	Eighty-fifth street, between Thirteenth and Fourteenth avenues	"	Work progressing.

Borough of The Bronx.

No.	Date.	Location.	Cause.	Result.
1	Jan. 18	North side summit place, 3d house west of Boston avenue, Kingsbridge.....	Defective drainage.....	Complied Nov. 16.
2	Mar. 1	No. 2766 Third avenue.....	Defective plumbing	" Mar. 6.
3	" 1	No. 525 East One Hundred and Sixty-fourth street..	"	" " 25.
4	Apr. 5	Southeast corner White Plains road and Bronx place, Wakefield.....	Defective drainage.....	" Apr. 27.
5	" 5	North side Westchester ave- 1st house west of White Plains road.....	"	" Sept. 29.
6	May 17	No. 506 East One Hundred and Fortieth street	Public nuisance.....	Not complied with.
7	" 17	No. 508 East One Hundred and Fortieth street	"	"
8	July 12	East side Perry avenue, 3d house north of Two Hundred and Ninth street....	"	"
9	Aug. 16	East side Tremont avenue, 300 feet south of Pelham road.....	Defective drainage and public nuisance.....	Work progressing.
10	" 16	Northeast corner One Hundred and Sixty-fifth street and Park avenue.....	Public nuisance.....	Complied Nov. 21.
11	Sept. 6	South side Buchanan place, first house west of Grand avenue.....	Defective drainage.....	" Dec. 9.
12	" 6	South side Buchanan place, second house west of Grand avenue.....	"	" " 9.
13	" 6	South side Buchanan place, fourth house west of Grand avenue.....	"	" " 9.
14	" 6	South side Buchanan place, fifth house west of Grand avenue.....	"	" " 9.
15	" 20	West side Clay avenue, first house south of One Hundred and Seventy-third street	"	Work progressing.
16	Oct. 11	No. 1241 Ogden avenue.....	"	Not complied with.
17	" 11	No. 1243 Ogden avenue.....	"	"
18	" 11	No. 1245 Ogden avenue.....	"	"
19	" 11	North side Briggs street, rear of second house west of Fifth avenue, Williamsbridge.....	Public nuisance.....	Work progressing.
20	" 18	West side Cedar lane, 75 feet north of One Hundred and Fifty-first street	"	"
21	Dec. 6	South side West Farms road, first house west of Union avenue.....	Defective drainage.....	"

Borough of Queens.

No.	Date.	Location.	Cause.	Result.
1	Jan. 4	Between Thompson, Greenpoint, Betts and Cleveland avenues	Public nuisance	Complied Jan. 20.
2	" 18	North side Hull avenue, 150 feet east of Astoria road, Maspeth	"	" Mar. 3.
3	" 18	North side Flushing avenue, near junction of Metropolitan avenue, Metropolitan	"	" " 6.
4	Feb. 1	91 Rockaway road, Jamaica	"	" Nov. 27.
5	" 1	Johnson avenue, near Juniper avenue, Maspeth	"	" Apr. 26.
6	Apr. 5	East side Ocean View avenue, 150 feet south of Myrtle avenue, Glendale Park	"	" June 3.
7	" 19	Astoria road, near Morris avenue, Maspeth	"	" Sept. 1.
8	" 19	Astoria road, Maspeth	"	" Apr. 26.
9	May 17	Maspeth avenue, opposite Van Cott avenue, Maspeth	"	" July 31.
10	" 17	Maspeth avenue, near Van Cott avenue, Maspeth	"	" " 31.
11	" 17	Johnson avenue, near Maiden lane, Maspeth	"	" May 29.
12	" 24	Hempstead road, near Maiden lane, Maspeth	"	Vacated July 5; not complied with.
13	" 31	Cooper avenue, Glendale	"	Complied Aug. 23.
14	" 31	Fresh Pond road, near Myrtle avenue, Glendale	"	" " 23.
15	May 31	Harman, near Myrtle avenue, Evergreen	Public nuisance	Complied Aug. 23.
16	" 31	Elm street, near Forest avenue, Evergreen	"	Not complied with.
17	" 31	No. 29 Park place, Evergreen	"	Complied Aug. 23.
18	June 14	North side Eleventh street, 200 feet east of Ninth avenue, Whitestone	"	" " 14.
19	" 14	East side Old Town Landing, 100 feet north of Maurice avenue, Maspeth	"	" " 16.
20	" 14	Old Town Landing, near L. I. R. R., Maspeth	"	" " 16.
21	" 14	Van Cott avenue, near Third street, Maspeth	"	" July 21.
22	" 14	Eighth avenue and Seventeenth street, College Point	"	" Aug. 15.
23	" 14	No. 132 Greenpoint avenue, Long Island City	Defective drainage	" July 21.
24	" 14	No. 133 Greenpoint avenue, Long Island City	"	" Sept. 22.
25	" 22	Seventh street, near Howell avenue, Woodside	Public nuisance	" Aug. 30.
26	" 22	Franklin street, near Fiske avenue, Winfield	"	Not complied with.
27	" 22	Jamaica and Hempstead Turnpike, north of Hamilton street, Hollis	"	Work progressing.
28	" 22	Flushing and Ehret avenues, North Beach	"	Complied Sept. 1.
29	" 22	Broadway, Little Neck	"	Not complied with.
30	" 22	Woodhaven avenue, near Liberty avenue, Woodhaven	"	"
31	" 22	South side Pacific street 100 feet east of Collins avenue, Maspeth	"	"

No.	Date.	Location.	Cause.	Result.
32	June 22	Enfield street, near South street, Union Course	Public nuisance	Not complied with.
33	" 22	Debevoise avenue, near Newtown road, Laurel Hill	"	Complied Sept. 7.
34	" 22	South street, near Farmers avenue, Hollis	"	Vacated July 30; not complied with.
35	" 22	No. 106 South street, Jamaica.	"	Complied Aug. 29.
36	" 22	Vandam street, near Skillman avenue, Long Island City	"	Vacated Dec. 28; not complied with.
37	" 22	No. 61 Carver street, Long Island City	"	Complied July 26.
38	" 22	First street, near Bismarck avenue, Bayside	"	Work progressing.
39	" 22	First street, near Cocheron avenue, Bayside	"	"
40	" 22	Lake street, Corona	"	Complied Aug. 21.
41	" 22	Queens avenue, Flushing	"	Work progressing.
42	" 22	Shell road, near Thompson avenue, Winfield	"	Complied Dec. 12.
43	" 22	Old South road, near Cedar lane, Woodhaven	"	" Aug. 29.
44	" 22	No. 13 Old Flushing road, Metropolitan	"	Not complied with.
45	" 22	No. 13 Old Flushing road, Metropolitan	"	Not complied with.
46	" 22	North side of Mt. Olivet avenue, 200 feet east of Broad street, Maspeth	"	Work progressing.
47	" 22	Old South road, Woodhaven.	"	Complied Aug. 29.
48	" 22	Corner Maspeth avenue and Broad street, Maspeth	"	Not complied with.
49	" 22	No. 1441 Metropolitan avenue, Metropolitan	"	"
50	" 22	East side old Flushing road, 200 feet south of Grand street, Maspeth	"	Complied Aug. 16.
51	" 22	West side Maiden lane, second house south of Clinton place, Maspeth	"	" " 16
52	" 22	Maspeth avenue near Van Cott avenue, Maspeth	"	" July 5.
53	" 22	Old Town road and Hoffman Boulevard, Newtown	"	Vacated July 20; not complied with.
54	" 22	No. 1022 Metropolitan avenue, East Williamsburgh	"	Work progressing.
55	" 22	No. 1022 Metropolitan avenue, East Williamsburgh	"	"
56	" 22	No. 1022 Metropolitan avenue, East Williamsburgh	"	"
57	" 22	No. 1022 Metropolitan avenue, East Williamsburgh	"	"
58	July 5	Northeast corner Harmon street and Covert avenue, Evergreen	"	Complied Aug. 23.
59	" 5	No. 300 Fairmount street, Evergreen	"	Complied Aug. 23.
60	" 5	Cooper avenue, Evergreen	"	" Dec. 6.
61	" 5	No. 184 Garrison street, Maspeth	"	Not complied with.
62	" 5	Astoria road, near Maurice avenue, Maspeth	"	Work progressing.
63	" 5	Tompkins avenue, near railroad, Glendale	"	"
64	" 5	North side Johnson avenue, 150 feet east of Juniper avenue, Maspeth	"	Complied Aug. 18.
65	" 5	Blackstump road, Jamaica	"	Not complied with.
66	" 5	Newtown road and Fulton street, Jamaica	"	Complied Sept. 1.

No.	Date.	Location.	Cause.	Result.
67	July 5	Calamus road, Newtown	Public nuisance	Vacated Aug. 20; not complied with.
68	" 5	Shell road, Newtown	"	Complied Aug. 21.
69	" 5	Vandeventer avenue and Old Bowery road, Long Island City	"	" " 8.
70	" 5	No. 10 Richard avenue, Glendale	Defective drainage	" July 21.
71	" 5	No. 210 Fresh Pond road, Glendale	"	" " 20.
72	" 19	Clermont avenue, near Hull avenue, Maspeth	Public nuisance	Not complied with.
73	" 19	Old Brook School road, near Shell road, Laurel Hill	"	"
74	Aug. 9	No. 290 Seventeenth avenue, Long Island City	"	"
75	" 9	No. 1445 Metropolitan avenue.	"	"
76	" 9	East side Jay avenue, 150 feet north of Clermont avenue, Maspeth	"	"
77	" 9	No. 7 South Eldert avenue, Hammels, Rockaway Beach	Defective plumbing and defective drainage	Complied Oct 1.
78	Oct. 11	Corner Liberty and Maure avenues, Dunton	Public nuisance	Not complied with.
79	" 11	Garrison street, near Flushing avenue, Maspeth	"	"
80	" 11	Old Flushing road, near Grand street, Metropolitan	"	Vacated Nov. 20; not complied with.
81	Nov. 22	Corner Elm and Forrest avenues, Evergreen	"	Not complied with.
82	" 22	Flushing avenue, corner Woodward avenue, East Williamsburgh	"	"
83	" 22	North side Flushing avenue, 100 feet east of Woodward avenue, East Williamsburgh	"	"
84	" 22	East side Woodward avenue, south of and adjoining L. I. R. R., East Williamsburgh	"	"
85	Dec. 6	Corner Water and Third streets, Woodhaven	"	Work progressing.
86	" 6	East side Western avenue, one-quarter mile north of Johnson avenue, Maspeth	"	Not complied with.
87	" 6	South side Metropolitan avenue, near L. I. R. R., East Williamsburgh	"	"
88	" 6	North side Flushing avenue, two stables from Woodward avenue, East Williamsburgh	"	"
89	" 6	Furman avenue, near Railroad crossing, Metropolitan	"	"
90	" 6	Mt. Olivet avenue, opposite Collins avenue, Maspeth	"	Work progressing.
91	" 6	North side Hull avenue, 100 feet east of Astoria road, Maspeth	"	Vacated Dec. 19; not complied with.
92	" 6	South side Garrison street, 200 feet north of R. R. crossing, Maspeth	"	Not complied with.
93	" 6	Snediker avenue and Sixth street, Union Course	"	"
94	" 30	West side Cedar lane, south of Pipe line, Woodhaven	"	"
95	" 30	Corner Woodward avenue and Stanhope street, Germania Heights	"	"

No.	Date.	Location.	Cause.	Result.
96	Dec. 30	Corner Covert avenue and Himrod street, Ridgewood Heights	Public nuisance	Not complied with.
97	" 30	Rockaway avenue, near Beaver street, Jamaica	"	"
98	" 30	No. 570 Jackson avenue, Long Island City (a)	"	"
99	" 30	No. 570 Jackson avenue, Long Island City (b)	"	"
100	" 30	No. 393 Willow street, Ridgewood	"	"
101	" 30	No. 307 Woodward avenue, Ridgewood	"	"

Borough of Richmond.

No.	Date.	Location.	Cause.	Result.
1	Mar. 15	No. 51 Maple avenue, Third Ward	Defective plumbing and defective drainage	Complied May 10.
2	" 15	No. 53 Maple avenue, Third Ward	Defective plumbing and defective drainage	" " 10.
3	" 15	Corner Bay street and Willow avenue, Clifton	Defective drainage	" Apr. 6.
4	" 22	No. 77 Broad street, Second Ward	"	" " 6.
5	Apr. 19	No. 136 Gordon street, Second Ward	"	Vacated Sept. 28; not complied with.
6	May 3	No. 22 Water street, Second Ward	"	Complied May 23.
7	" 3	No. 24 Water street, Second Ward	"	" " 23.
8	" 24	No. 410 Richmond road, Second Ward	"	" June 16.
9	June 7	No. 75 Van Pelt avenue, Third Ward	"	Not complied with.
10	" 7	No. 192 Vanderbilt avenue, Second Ward	"	Complied June 12
11	" 7	No. 58 Burgher avenue, First Ward	"	" Sept. 27.
12	Sept. 6	East of Brement avenue, north of Forest	Public nuisance	Work progressing.
13	Oct. 11	No. 47 Montgomery avenue, First Ward	Defective drainage	Complied Dec. 9
14	Dec. 6	No. 36 Swan street, Second Ward	Defective plumbing and defective drainage	Not complied with.
15	" 6	No. 38 Swan street, Second Ward	Defective plumbing and defective drainage	"

SUMMARY.

Number of premises ordered vacated after giving notice		414
Orders complied with before vacation of premises	217	
Premises vacated after notice	59	
Work in progress	67	
Orders not fully complied with	69	
Orders rescinded by Board	1	
Extension of time granted until 1906 by Board	1	
		414
Of those vacated—		
Orders complied with	6	
Work in progress	3	
Orders not complied with	50	
		59

WORK PERFORMED BY THE DIVISION OF INSPECTION.

Work Performed by the Inspectors.

Total number of inspections and reinspections	1,041,492
Number of inspections	991,749
Number of tenement houses	14,122
Number of shore inspections	3,798
Number of lodging-houses	1,333
Number of private dwellings	21,977
Number of mercantile establishments	29,264
Number of manufactories and workshops	4,595
Number of stables	7,974
Number of sunken and vacant lots	1,984
* Number of miscellaneous	919,473
Total	1,004,520
Number of complaints forwarded for Board orders	18,029
Number of reinspections on orders	49,743

* Includes inspections of milk, fruit, food, meat, etc.

Number of specimens of milk examined	119,751
Number of specimens of milk collected for analysis	6,418
Number of quarts of adulterated milk destroyed	40,196
Number of permits issued	16,235
Number of arrests	1,118
Number of persons held on bail	1,045
Number of persons discharged	13
Number of pounds of milk, fruit, food, meat and fish condemned and seized	14,558,383

MERCANTILE ESTABLISHMENTS.

Number of complaints received	139
Number of complaints returned for orders	1,662
Number of children interviewed applying for certificates	41,057
Number of employment certificates granted	18,389
Number of employment certificates refused	5,266
Number of duplicate certificates issued	529

The number of dead animals and the quantity of offal, garbage, etc., removed from the shore front by the Shore Inspectors was:

Dogs	779	Fish, number of	826
Cats	357	Offal, pieces of	322
Rats	414	Meats, pieces of	770
Goats	38	Bedding, pieces of	338
Sheep	93	Clothing, pieces of	476
Hogs	23	Mattresses, number of	351
Calves	1	Human bodies, number of	11
Horses	11		
Fowls	405		
Total number of animals	2,121		

Work Performed by the Sanitary Police.

Number of inspections and reinspections	335,431
Number of inspections	297,439
Number of tenement-houses	48,014
Number of lodging-houses	1,928
Number of private dwellings	40,039
Number of mercantile establishments	385
Number of manufactories and workshops	7,760

Number of stables	27,777
Number of manure dumps	8,561
Number of sunken and vacant lots	11,711
Number of miscellaneous	156,329
Total	302,504
Number of complaints forwarded for Board orders	9,433
Number of complaints made and referred to Inspectors	1,182
Number of nuisances abated by personal effort	21,229
Number of negative reports forwarded	11,326
Number of visits to stop work, close stores, and premises under observation on account of contagious diseases	2,172
Number of ash receptacles removed from outside stoop-line	15,375
Number of reinspections on orders	37,992
Number of arrests	2,616
Number of persons held on bail	592
Number of persons discharged	397

WORK PERFORMED BY THE DIVISION OF CONTAGIOUS DISEASES.

Number of visits to cases of contagious diseases	159,850
Number of cases visited for special diagnosis	7,415
Number of complaints forwarded for Board orders	306
Number of visits to tenement-houses	281,260
Number of visits to hotels	1,470
Number of visits to schools and institutions	116,946
Number of visits to private houses	60,722
Number of visits, miscellaneous	53,168
Total number of visits	513,566
Number of primary vaccinations	31,584
Number of revaccinations	91,690
Number of vaccinations in schools	30,263
Total number of vaccinations	153,537
Number of certificates of vaccination issued	36,443

Number of inspections of stables by Veterinarians	7,858
Number of animals examined	50,949
Number of post-mortems on animals	120
Number of glandered horses condemned and destroyed	1,039
Number of persons removed to Contagious Diseases Hospital	4,817
Number of dead bodies removed to Morgue	46
Number of houses visited for disinfection	41,136
Number of infected rooms disinfected	63,668
Number of times ambulances, etc., disinfected	2,470
Number of pieces infected goods disinfected	89,817
Number of pieces infected goods destroyed	21,772
Total number of inspections	562,560

Number of Diseases Reported.

Boroughs.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Parotiditis.	Chicken-pox.	Whooping Cough.	Small-pox.	Total.
Year, 1905.								
Manhattan	7,553	4,333	9,495	852	2,699	1,225	12	26,059
Brooklyn	4,397	2,884	7,053	333	1,943	903	34	17,437
The Bronx	932	495	1,266	113	421	165	..	3,452
Queens	577	283	924	5	162	88	..	2,039
Richmond	257	176	288	36	248	266	..	1,271
City of New York	13,686	8,071	19,026	1,339	5,473	2,637	46	50,258
Quarantine	13	30	670	...	30	...	4	747

Work Performed by the Medical School Inspectors.

Schools.	Number of Visits to Schools.	Number of Children Examined.	Number of Children Excluded.
Public Schools	66,287	5,446,591	17,217
Parochial Schools	12,937	673,994	1,183
Industrial Schools, American Female Guardian Society	1,204	39,825	133
Industrial Schools, Children's Aid Society	2,077	59,647	133
Private Schools	249	6,487	7
Kindergarten Schools	5,994	58,891	171
Total	88,748	6,285,435	18,844

Table Showing Diseases for Which Children Were Excluded.

Schools.	Measles.	Diphtheria.	Scarlet Fever.	Whooping Cough.	Mumps.	Contagious Eye Diseases.	Pediculosis.	Chicken-pox.	Skin Diseases.	Miscellaneous.	Total Excluded.
Public Schools	*231	*60	*38	....	....	....	....	*719	....	....	....
	293	69	43	327	968	7,811	4,433	861	1,854	558	17,217
Parochial Schools	*5	....	....	....	....	....	....	*21	....	....	....
	9	1	....	6	9	820	207	25	95	11	1,183
Industrial Schools, American Female Guardian Society.	....	....	*1	....	....	....	....	*3	....	....	....
	....	....	2	1	2	91	17	5	13	2	133
Industrial Schools, Children's Aid Society	*1	....	....	....	....	....	....	*12	....	....	....
	1	....	....	2	18	68	13	12	14	5	133
Private Schools	....	....	1	....	....	1	....	*2	2	1	7
Kindergarten Schools	*4	*1	*3	....	....	....	....	*27	....	....	....
	5	2	3	15	6	43	22	32	40	3	171
Total	*241	*61	*42	....	....	....	....	*784	....	....	....
	308	72	49	351	1,003	8,834	4,692	937	2,018	580	18,844

*Cases of true Measles, Diphtheria, Scarlet Fever and Chicken-pox.

Work Performed by the School Nurses.

Number of visits to tenement houses	40,082
Number of visits to schools	25,960
Number of miscellaneous visits	1,335
Total number of visits	67,377

Number of Cases of Diseases Cared For.

Pediculosis	616,384
Contagious eye diseases	188,805
Trachoma	80,050
Scabies	2,813
Ringworm	21,111
Impetigo	13,483
Favus	2,645
Erysipelas	132
Measles	2,292

Diphtheria	283
Scarlet fever	1,970
Miscellaneous	50,678
Total number of cases treated	980,646

Work Performed by the Summer Corps.

Number of visits to tenements	60,027
Number of miscellaneous visits	8,130
Number of families visited	289,114
Number of children examined at pier for St. John's Guild	25,261
Number of sick treated	1,985
Number of other physician's patients treated	1,551
Number of revisits	1,172
Number of milk inspections	9,740
Number of original complaints forwarded	220
Number of circulars and hangers distributed	100,283
Number of ice tickets distributed	456
Number of milk tickets distributed	3,750
Number of St. John's Guild tickets distributed	4,909
Number of sunstroke circulars distributed	2,493
Number examined by "Bath Detail"	17,497
Number of cases of trachoma found by "Bath Detail"	949

WORK PERFORMED BY THE DIVISION OF COMMUNICABLE DISEASES.

Number of new cases treated with antitoxin	3,458
Number of curative injections given	3,613
Number of cases immunized	7,726
Number of cases intubated	168
Number of diphtheria inspections	9,768
Number of living cases of tuberculosis investigated	9,044
Number of dead cases of tuberculosis investigated	5,942
Number of miscellaneous visits	7,304
Total number of inspections	70,091
Number of original complaints forwarded	1,219
Number of fumigations performed	7,578

Number of Diseases Reported.

Year 1905.

Borough.	Tuberculosis.	Typhoid Fever.	Pneumonia.	Malarial Fever.	Cerebro Spinal Meningitis.	Puerperal Septicaemia.	Abortion.	Erysipelas.	Total.
Manhattan	14,081	1,867	716	172	1,892	5	51	538	19,322
Brooklyn	4,897	1,913	1,478	70	689	3	1	7	9,058
The Bronx	955	327	182	24	118	11	5	22	1,644
Queens	504	146	105	2	38	11	4	2	812
Richmond	394	73	69	91	18	9	2	24	680
City of New York	20,831	4,326	2,550	359	2,755	39	63	593	31,516

Number of bacteriological diagnoses of suspected diphtheria	21,580
Number of cases found to be true diphtheria	8,823
Number of cases found not to be true diphtheria	12,061
Number of bacteriological diagnoses indecisive	696
Number of bacteriological examinations of healthy throats in infected families	582
Number of later bacteriological examinations of diphtheria (convalescent)	19,273
Number of cultures taken by Medical School Inspectors	313
Number of bacteriological examinations of sputum from cases of suspected tuberculosis	18,639
Number of tubercle bacilli found	6,424
Number of tubercle bacilli not found	12,215
Number of specimens of blood examined for typhoid fever reaction (Widal test)	5,754
Number of specimens showing positive reaction	1,229
Number of specimens showing negative reaction	3,646
Number of specimens showing doubtful reaction	879
Number of specimens of urine examined for typhoid fever reaction (Diazo)	1,082
Number of speciments showing positive reaction	313
Number of specimens showing negative reaction	691
Number of specimens showing doubtful reaction	78
Number of specimens of blood examined for malarial organisms	1,035
Number of malarial organisms found	150
Number of malarial organisms not found	885

Number of visits to collect diphtheria culture tubes, samples of sputum, etc.	31,999
Number of laboratory preparations made	72,132
Number of culture tubes prepared	86,124
Number of swabs made	97,245
Number of new cases treated at tuberculosis clinic	3,802
Number of old cases treated at tuberculosis clinic	15,078
Number of prescriptions filled	30,007

WORK PERFORMED BY THE DIVISION OF LABORATORIES.

Work Performed at the Vaccine Laboratory.

Number of visits to tenement-houses	1,942
Number of miscellaneous visits	3
Total number of visits	1,945
Total primary vaccinations	1,362
Number of vaccination certificates issued	1,089
Number of specimens of vaccine virus tested bacteriologically	1,082
Number of animals vaccinated	97
Number of animals collected from	96
Number of grammes of vaccine virus collected	2,664.61
Number of cubic centimeters of liquid vaccine virus prepared	13,076
Number of spades charged with humanized virus	4,747
Number of capillary tubes of vaccine virus prepared	113,050
Number of small vials of vaccine virus prepared	1,867
Number of large vials of vaccine virus prepared	6,910
Number of mailing blocks prepared	129,986
Number of autopsies on animals	96
Number of white mice injected with vaccine virus	54
Number of other animals experimented upon	189

Work Performed at the Research Laboratory.

Number of bacteriological examinations for presence of diphtheria bacilli	1,295
Number of inoculations of animals with toxins for development of antitoxic substances	151
Number of animals bled for antitoxic serums	27
Number of cubic centi[illegible] diphtheria antitoxic serum produced	170,873

Number of cubic centimeters of diphtheria antitoxic serum bottled for distribution	334,518
Number of cubic centimeters of tetanus antitoxic serum produced	22,140
Number or cubic centimeters of tetanus antitoxic serum bottled for distribution	4,950
Number of cubic centimeters of mallein produced	1,565
Number of cubic centimeters of mallein bottled for distribution	633
Number of cubic centimeters of tuberculin produced	815
Number of cubic centimeters of tuberculin bottled for distribution	47
Number of samples of toxins tested	178
Number of samples of antitoxic serums tested	594
Number of specimens from cases of dysentery examined	4

Pasteur Treatment.

Number of cases receiving Pasteur treatment	117
Number of injections made in patients	2,458
Number of inoculations of fixed virus	299

Diagnosis of Hydrophobia.

Number of animals received for diagnosis	44

Number of bacteriological examinations of water	171
Number of bacteriological examinations of milk	1,019
Number of bacteriological examinations of feces	12
Number of pneumonia cultures examined	3,196
Number of miscellaneous bacteriological examinations	769
Number of disinfection tests	9,729

Work Performed at the Chemical Laboratory.

Number of reports forwarded and filed	10,518
Total number of analyses	9,951

Classified as to Character of Analysis.

Number of acetanilid	2
Number of air	19
Number of alcohol (absolute)	2
Number of alcohol	35
Number of allspice	4
Number of antipyrin	10
Number of apple juice	1
Number of atropine sulphate	1

Number of baking powder	15
Number of balsam	1
Number of beef extract	10
Number of beans (canned)	1
Number of beer	1
Number of blue ointment	25
Number of boiler scales	2
Number of boiler compound	2
Number of bologna	10
Number of bread	7
Number of butter	14
Number of buttermilk	1
Number of bouillon capsules	2
Number of cakes	4
Number of can cleaner	2
Number of candy	120
Number of candy coloring	1
Number of capsules	13
Number of carbolic acid	12
Number of catsup	10
Number of catarrh powder	2
Number of cherry juice	1
Number of cherries	1
Number of chicken	1
Number of cheese	1
Number of cigarettes	2
Number of cinnamon	10
Number of chloroform	1
Number of clay	1
Number of cloves	7
Number of citrate of magnesia	4
Number of coal	53
Number of cocoa	3
Number of cocaine	1
Number of cod fish (dried)	6
Number of coffee essence	1
Number of coffee	4
Number of coloring matter	24
Number of corn (cream)	5
Number of corn (sugar)	6
Number of corn starch	3
Number of corned beef	4

Number of creams	179
Number of creams (evaporated)	13
Number of cream thickener	3
Number of cream of tartar	22
Number of creosote	1
Number of dates	1
Number of duck	1
Number of egg albumen	2
Number of ether	1
Number of exalgin	3
Number of extract of bitter almond	6
Number of fish (canned)	5
Number of flour	4
Number of formaldehyde	7
Number of frankfurter	1
Number of fruit syrup	2
Number of gelatin	3
Number of ginger	5
Number of guaiacol	3
Number of glue	2
Number of glycerin	4
Number of grape nuts	1
Number of hair regenerator	1
Number of hairozone	1
Number of hair remover	2
Number of ham (potted)	1
Number of head cheese	5
Number of herrings (kippered)	1
Number of honey	18
Number of honey compound	2
Number of horse ball	3
Number of hydrogen peroxide	1
Number of ice cream	4
Number of inhaler	1
Number of intestines of chicken	2
Number of iodine	5
Number of jam (blackberry)	1
Number of jam (raspberry)	1
Number of jam (strawberry)	3
Number of jam (gooseberry)	1
Number of Jamaica ginger	1
Number of jelly	11

Number of jelly powder 1
Number of lard 1
Number of lemon extract 8
Number of lemon (essence of) 6
Number of lemon sugar 1
Number of lemonette (Eifel tower) 1
Number of liniments 25
Number of lima beans 1
Number of lining of glove 1
Number of liquids 27
Number of liquid egg 3
Number of liquozone 1
Number of liquor 1
Number of liverwurst 6
Number of lobster (canned) 4
Number of lotion 5
Number of lubricating oils 5
Number of mace 2
Number of mackerel 2
Number of maple sugar 1
Number of meat (cooked) 2
Number of meat (canned) 7
Number of marmalade (orange) 1
Number of medicine 116
Number of milks (adulterated) 2,216
Number of milks (unadulterated) 4,685
Number of milks (condensed) 123
Number of milks (human) 3
Number of milks (special) 40
Number of milks (injurious ingredients) 3
Number of milk coloring 5
Number of molasses 4
Number of molasses spirits 1
Number of morphine 1
Number of morphine sulphate 1
Number of mustard (ground) 11
Number of mustard (prepared) 10
Number of mustard seed 2
Number of muck 1
Number of nasal powder 1
Number of nittine 1
Number of nun's veiling 1

Number of obesity medicine 1
Number of oil of wintergreen..... 1
Number of oleum vanilla 1
Number of olives 1
Number of olive oil 14
Number of opium 56
Number of oranges 1
Number of oxygen 1
Number of oxide of mercury 1
Number of pan (said to contain candy)..... 2
Number of peanut butter 1
Number of peas (canned) 19
Number of pears (canned) 1
Number of pepper 25
Number of phenacetin 112
Number of pie (portion of)..... 1
Number of pie (whole of)..... 1
Number of pills 4
Number of plums (canned) 1
Number of pork and beans..... 1
Number of potassium acetate 1
Number of pickles (mixed) 1
Number of pork loins 1
Number of preservaline 2
Number of roast beef (canned) 2
Number of roast beef (in dish)..... 1
Number of root beer 6
Number of roll 1
Number of roll (part of)..... 1
Number of rubber 1
Number of saffron..... 2
Number of sage 1
Number of salad dressing 2
Number of salmon (canned) 14
Number of salt 1
Number of sapolio 2
Number of sardines 18
Number of sauce 10
Number of sausages 6
Number of shrimp (canned) 1
Number of soap 16
Number of soda 4

Number of soda (super carbonate)	1
Number of sodium salicylate	2
Number of sodium sulphocarbolate	1
Number of soup	9
Number of spinach (canned)	1
Number of spice	1
Number of spirits of camphor	6
Number of steak in bowl	1
Number of stew	1
Number of stomach contents	1
Number of strawberries (canned)	2
Number of strawberries (extract)	1
Number of string beans (canned)	6
Number of succotash (canned)	2
Number of sugar	4
Number of sugar coloring	2
Number of syrup (peach)	1
Number of syrup (lemon)	5
Number of syrup (corn)	1
Number of syrup (maple)	7
Number of syrup (raspberry)	1
Number of syrup (strawberry)	1
Number of syrup (lemonade)	1
Number of syrup (miscellaneous)	6
Number of tablets	40
Number of tannic acid	1
Number of tea	9
Number of tea (in cup)	1
Number of tea (in pitcher)	1
Number of thyme	1
Number of tinctures (miscellaneous)	15
Number of tincture of arnica	5
Number of tincture of aconite	1
Number of tincture of belladonna	1
Number of tincture of camphor	1
Number of nux vomica	2
Number of tomatoes (canned)	13
Number of tomato paste	1
Number of tripe liquid	4
Number of tripe (boiled)	5
Number of urine	29
Number of vanilla	1

Number of vanilla extract	22
Number of vanillan	1
Number of vinegar (white)	4
Number of vict acid	1
Number of veronidia	1
Number of viscera	1
Number of wall paper	1
Number of waters (sanitary analyses)	904
Number of waters (cellar)	49
Number of waters (carbonated)	1
Number of waters (qualitative)	2
Number of wild cherry phosphate	1
Number of wine	23
Number of watermelon (artificial)	1
Number of whisky	36
Number of white lead	3
Number of zinc sulphate	2
Number of experimental analyses	225
Total number of analyses	9,951

Number of lactometers tested	277
Number of thermometers tested	220
Number of Babcock flasks tested	48
Number of sugar flasks tested	22

Work Performed by the Pathologist.

Number of autopsies (human)	2
Number of bleedings for antitoxic serum	165
Number of cubic centimeters of serum prepared	439,590
Number of injections of animals	847

The number of dead animals removed from the streets and the quantity of offal, etc., removed from the markets and slaughter-houses by the Contractors was as follows:

Horses	21,590
Mules	49
Donkeys	10
Colts	48
Ponies	8
Bulls	2

Cows	405
Calves	687
Sheep	300
Goats	147
Hogs	64
Pigs	5
Oxen	2
Cats and dogs	94,720
Dogs from public pound	33,370
Total number of animals	151,407
Offal, barrels of	15,257
Fish, barrels of	10,988
Poultry, barrels of	1,309
Meats, barrels of	15
Beef, quarters of	226
Veal, quarters of	2,815
Game, boxes of	43
Meats, boxes of	72
Brains, boxes of	16

REPORT OF PATIENTS TREATED AT [illegible] HOSPITAL

[illegible]

[illegible]

1905.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Remaining in Hospital, December 31, 1904	2	1	3	-	2	3	-
Admitted	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Discharged	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Transferred	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Died	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Remaining in Hospital, December 31, 1905	1	1	2	2		2	1

Remaining in Hospital December 31, 1904.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	1	..	..	1	..	1	..	..	..	1
Scarlet fever	2	..	1	..	2	2	..	1	1	3
Measles	..	..	1	..	..	..	..	1	1	1
Mumps	..	..	1	..	1	1	..	..	..	1
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Total	4	..	3	2	3	5	..	2	2	7
For observation	1	2	..	..	3	3	..	..	..	3

Admitted.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	341	118	83	237	203	440	48	54	102	542
Scarlet fever	181	212	96	190	190	380	49	60	109	489
Measles	218	89	93	130	152	282	56	62	118	400
Small-pox	..	1	6	5	1	6	..	1	1	7
Mumps	2	2	11	4	1	5	8	2	10	15
Varicella	19	10	16	21	9	30	9	6	15	45
Pertussis	54	17	1	31	38	69	1	2	3	72
German measles	3	1	4	4	..	4	2	2	4	8
Diphtheria and scarlet fever	11	6	1	9	7	16	1	1	2	18
Diphtheria and measles	30	4	1	14	15	29	2	4	6	35
Diphtheria and varicella	4	..	..	2	2	4	..	..	..	4
Diphtheria and pertussis	6	3	..	5	4	9	..	..	..	9
Scarlet fever and measles	1	1	1	..	2	2	1	..	1	3
Scarlet fever and varicella	2	1	..	1	2	3	..	..	..	3
Scarlet fever and pertussis	3	1	..	2	2	4	..	..	..	4
Measles and pertussis	3	2	..	3	2	5	..	..	..	5
Measles and varicella	2	..	..	1	1	2	..	..	..	2
Varicella and pertussis	1	..	..	1	..	1	..	..	..	1
Tuberculosis	..	2	99	42	13	55	27	19	46	101
Total	881	470	412	702	644	1,346	204	213	417	1763
For observation	46	18	57	38	35	73	24	24	48	121
Accompanying	15	14	37	16	27	43	3	20	23	66

Discharged.

Diphtheria	17	9	16	16	13	29	4	9	13	42
Scarlet fever	6	3	4	5	5	10	1	2	3	13
Measles	4	3	2	4	4	8	1	..	1	9
Small-pox	..	..	1	..	..	..	..	1	1	1
Varicella	1	..	1	..	..	..	2	..	2	2
Mumps	1	2	6	3	2	5	2	2	4	9
Pertussis	2	2	..	3	1	4	..	..	..	4
German measles	1	..	2	1	..	1	1	1	2	3

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria and scarlet fever	1	..	..	1	..	1	..	..	..	1
Diphtheria and pertussis	4	3	..	3	4	7	..	..	..	7
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Tuberculosis	..	..	2	..	1	1	..	1	1	2
Total	38	22	34	37	30	67	11	16	27	94
For observation	20	13	39	17	24	41	15	16	31	72
Accompanying	6	10	11	6	11	17	2	8	10	27

Transferred.

Diphtheria	270	103	65	190	166	356	41	41	82	438
Scarlet fever	165	200	86	176	177	353	41	57	98	451
Measles	198	85	91	118	139	257	54	63	117	374
Small-pox	..	1	5	5	1	6	..	..	..	6
Mumps	1	..	5	1	..	1	5	..	5	6
Varicella	18	10	15	21	9	30	7	6	13	43
Pertussis	48	14	1	26	34	60	1	2	3	63
German measles	2	1	2	3	..	3	1	1	2	5
Diphtheria and scarlet fever	5	5	1	7	4	11	..	..	..	11
Diphtheria and measles	24	3	1	12	13	25	1	2	3	28
Diphtheria and varicella	3	..	..	1	2	3	..	..	..	3
Diphtheria and pertussis	1	..	..	1	..	1	..	..	..	1
Scarlet fever and measles	1	1	1	..	2	2	1	..	1	3
Scarlet fever and varicella	2	1	..	1	2	3	..	..	..	3
Scarlet fever and pertussis	3	1	..	2	2	4	..	..	..	4
Measles and pertussis	3	2	..	3	2	5	..	..	..	5
Measles and varicella	2	..	..	1	1	2	..	..	..	2
Varicella and pertussis	1	..	..	1	..	1	..	..	..	1
Tuberculosis	..	2	97	42	12	54	27	18	45	99
Total	747	429	370	611	566	1,177	179	190	369	1546
For observation	17	6	17	17	9	26	9	5	14	40
Accompanying	8	4	25	10	14	24	1	12	13	37

Died.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	52	5	2	30	22	52	3	4	7	59
Scarlet fever	10	6	7	6	8	14	7	2	9	23
Measles	14	1	1	7	8	15	1	..	1	16
Pertussis	4	1	..	2	3	5	..	..	..	5
Mumps	..	..	1	..	..	..	1	..	1	1
Diphtheria and scarlet fever	5	1	..	1	3	4	1	1	2	6
Diphtheria and measles	6	1	..	2	2	4	1	2	3	7
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Diphtheria and pertussis	1	..	..	1	..	1	..	..	..	1
Total	93	15	11	50	46	96	14	9	23	119
For observation	9	1	1	4	4	8	..	3	3	11
Accompanying	1	..	..	..	1	1	..	..	..	1

Remaining in Hospital December 31, 1905.

Diphtheria	3	1	..	2	2	4	..	..	..	4
Scarlet fever	2	3	..	3	2	5	..	..	..	5
Measles	2	..	..	1	1	2	..	..	..	2
Total	7	4	..	6	5	11	..	..	..	11
For observation	1	..	..	..	1	1	..	..	..	1
Accompanying	..	..	1	..	1	1	..	..	..	1

Recapitulation.

	Remaining Dec. 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining Dec. 31, 1905.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria	1	..	285	257	20	22	231	207	33	26	2	2
Scarlet fever	..	3	239	250	6	7	217	234	13	10	3	2
Measles	..	1	186	214	5	4	172	202	8	8	1	1
Small-pox	..	..	5	2	..	1	5	1	..	..	..	..
Mumps	..	1	12	3	5	4	6	..	1	..	..	..
Varicella	..	..	30	15	2	..	28	15	..	..	..	..
Pertussis	..	..	32	40	3	1	27	36	2	3	..	..
German measles	..	..	6	2	2	1	4	1	..	..	..	..
Diphtheria and scarlet fever	..	..	10	8	1	..	7	4	2	4	..	..
Diphtheria and measles	..	..	16	19	..	..	13	15	3	4	..	..
Diphtheria and varicella	1	..	2	2	1	..	1	2	1	..	..	..
Diphtheria and pertussis	..	..	5	4	3	4	1	..	1	..	..	..
Scarlet fever and measles	..	..	1	2	..	..	1	2	..	..	..	..
Scarlet fever and varicella	..	..	1	2	..	..	1	2	..	..	..	..
Scarlet fever and pertussis	..	..	2	2	..	..	2	2	..	..	..	..
Measles and pertussis	..	..	3	2	..	..	3	2	..	..	..	..
Measles and varicella	..	..	1	1	..	..	1	1	..	..	..	..
Varicella and pertussis	..	..	1	..	..	..	1	..	..	..	..	..
Tuberculosis	..	..	69	32	..	2	69	30	..	..	..	..
Total	2	5	906	857	48	46	790	756	64	55	6	5
For observation	..	3	62	59	32	40	26	14	4	7	..	1
Accompanying	..	..	19	47	8	19	11	26	..	1	..	1

REPORT OF PATIENTS TREATED AT THE WILLARD PARKER HOSPITAL.

BOROUGH OF MANHATTAN.

General Statement.

1905.	Males.	Females.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital, Dec. 31, 1904	27	27	54	46	8	54	2
Admitted	226	198	424	323	101	424	5
Total	253	225	478	369	109	478	7
Discharged	191	158	349	252	97	349	6
Transferred	12	19	31	26	5	31	..
Died	50	48	98	91	7	98	1
Total	253	225	478	369	109	478	7

Remaining in Hospital December 31, 1904.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	31	15	8	24	22	46	3	5	8	54
Accompanying	2	..	..	2	..	2	..	..	..	2

Admitted.

Diphtheria	227	91	106	175	148	323	51	50	101	424
Accompanying	2	..	3	2	2	4	..	1	1	5

Discharged.

Diphtheria	152	87	110	143	109	252	48	49	97	349
Accompanying	3	..	3	3	2	5	..	1	1	6

Transferred.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	18	12	1	10	16	26	2	3	5	31

Died.

Diphtheria	88	7	3	46	45	91	4	3	7	98
Accompanying	1	..	..	1	..	1	..	..	..	1

Recapitulation.

	Remaining December 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1905.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria	27	27	226	198	191	158	12	19	50	48	..	..
Accompanying	2	..	2	3	3	3	..	..	1	..	..	..

REPORT OF THE PATIENTS TREATED AT RIVERSIDE HOSPITAL.

BOROUGH OF THE BRONX.

General Statement.

1905.	Males.	Females.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital, Dec. 31, 1904	109	90	199	118	81	199	1
Admitted	940	909	1,849	1,394	455	1,849	37
Total	1,049	999	2,048	1,512	536	2,048	38
Discharged	736	776	1,512	1,128	384	1,512	33
Died	174	155	329	266	63	329	1
Total	910	931	1,841	1,394	447	1,841	34
Remaining in Hospital, Dec. 31, 1905	139	68	207	118	89	207	4

Died.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	52	5	2	30	22	52	3	4	7	59
Scarlet fever	10	6	7	6	8	14	7	2	9	23
Measles	14	1	1	7	8	15	1	..	1	16
Pertussis	4	1	..	2	3	5	..	..	..	5
Mumps	..	..	1	..	..	..	1	..	1	1
Diphtheria and scarlet fever	5	1	..	1	3	4	1	1	2	6
Diphtheria and measles	6	1	..	2	2	4	1	2	3	7
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Diphtheria and pertussis	1	..	..	1	..	1	..	..	..	1
Total	93	15	11	50	46	96	14	9	23	119
For observation	9	1	1	4	4	8	..	3	3	11
Accompanying	1	..	..	..	1	1	..	..	..	1

Remaining in Hospital December 31, 1905.

Diphtheria	3	1	..	2	2	4	..	..	..	4
Scarlet fever	2	3	..	3	2	5	..	..	..	5
Measles	2	..	..	1	1	2	..	..	..	2
Total	7	4	..	6	5	11	..	..	..	11
For observation	1	..	..	..	1	1	..	..	..	1
Accompanying	..	..	1	..	1	1	..	..	..	1

Recapitulation.

	Remaining Dec. 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining Dec. 31, 1905.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria	1	..	285	257	20	22	231	207	33	26	2	2
Scarlet fever	..	3	239	250	6	7	217	234	13	10	3	2
Measles	..	1	186	214	5	4	172	202	8	8	1	1
Small-pox	..	..	5	2	..	1	5	1	..	..	..	..
Mumps	..	1	12	3	5	4	6	..	1	..	..	..
Varicella	..	..	30	15	2	..	28	15	..	..	..	..
Pertussis	..	..	32	40	3	1	27	36	2	3	..	..
German measles	..	..	6	2	2	1	4	1	..	..	..	..
Diphtheria and scarlet fever	..	..	10	8	1	..	7	4	2	4	..	..
Diphtheria and measles	..	..	16	19	..	..	13	15	3	4	..	..
Diphtheria and varicella	1	..	2	2	1	..	1	2	1	..	..	..
Diphtheria and pertussis	..	..	5	4	3	4	1	..	1	..	..	..
Scarlet fever and measles	..	..	1	2	..	..	1	2	..	..	..	..
Scarlet fever and varicella	..	..	1	2	..	..	1	2	..	..	..	..
Scarlet fever and pertussis	..	..	2	2	..	..	2	2	..	..	..	..
Measles and pertussis	..	..	3	2	..	..	3	2	..	..	..	..
Measles and varicella	..	..	1	1	..	..	1	1	..	..	..	..
Varicella and pertussis	..	..	1	..	..	..	1	..	..	..	..	..
Tuberculosis	..	..	69	32	..	2	69	30	..	..	..	..
Total	2	5	906	857	48	46	790	756	64	55	6	5
For observation	..	3	62	59	32	40	26	14	4	7	..	1
Accompanying	..	..	19	47	8	19	11	26	..	1	..	1

REPORT OF PATIENTS TREATED AT THE WILLARD PARKER HOSPITAL.

BOROUGH OF MANHATTAN.

General Statement.

1905.	Males.	Females.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital, Dec. 31, 1904	27	27	54	46	8	54	2
Admitted	226	198	424	323	101	424	5
Total	253	225	478	369	109	478	7
Discharged	191	158	349	252	97	349	6
Transferred	12	19	31	26	5	31	..
Died	50	48	98	91	7	98	1
Total	253	225	478	369	109	478	7

Remaining in Hospital December 31, 1904.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	31	15	8	24	22	46	3	5	8	54
Accompanying	2	..	..	2	..	2	..	..	..	2

Admitted.

Diphtheria	227	91	106	175	148	323	51	50	101	424
Accompanying	2	..	3	2	2	4	..	1	1	5

Discharged.

Diphtheria	152	87	110	143	109	252	48	49	97	349
Accompanying	3	..	3	3	2	5	..	1	1	6

Transferred.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	18	12	1	10	16	26	2	3	5	31

Died.

Diphtheria	88	7	3	46	45	91	4	3	7	98
Accompanying	1	..	..	1	..	1	..	..	..	1

Recapitulation.

	Remaining December 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1905.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria	27	27	226	198	191	158	12	19	50	48	..	..
Accompanying	2	..	2	3	3	3	..	..	1	..	..	..

REPORT OF THE PATIENTS TREATED AT RIVERSIDE HOSPITAL.

BOROUGH OF THE BRONX.

General Statement.

1905.	Males.	Females.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital, Dec. 31, 1904	109	90	199	118	81	199	1
Admitted	940	909	1,849	1,394	455	1,849	37
Total	1,049	999	2,048	1,512	536	2,048	38
Discharged	736	776	1,512	1,128	384	1,512	33
Died	174	155	329	266	63	329	1
Total	910	931	1,841	1,394	447	1,841	34
Remaining in Hospital, Dec. 31, 1905	139	68	207	118	89	207	4

Remaining in Hospital December 31, 1904.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	4	4	3	3	6	9	..	2	2	11
Scarlet fever	25	40	14	18	34	52	15	12	27	79
Measles	4	6	7	5	12	17	..	..	..	17
Diphtheria and scarlet fever	8	4	1	4	8	12	..	1	1	13
Diphtheria and measles	7	1	..	6	1	7	1	..	1	8
Scarlet fever and measles	1	1	..	..	1	1	..	1	1	2
Scarlet fever and varicella	2	..	..	..	2	2	..	..	..	2
Scarlet fever and pertussis	1	..	..	..	1	1	..	..	..	1
Tuberculosis	..	..	66	16	1	17	41	8	49	66
Total	52	56	91	52	66	118	57	24	81	199
Accompanying	..	..	1	..	1	1	..	..	..	1

Admitted.

Diphtheria	385	169	88	263	265	528	55	59	114	642
Scarlet fever	180	256	93	211	205	416	48	65	113	529
Measles	186	79	90	118	119	237	53	65	118	355
Diphtheria and scarlet fever	20	16	1	16	19	35	1	1	2	37
Diphtheria and measles	40	7	1	22	22	44	1	3	4	48
Scarlet fever and measles	20	7	..	7	15	22	1	4	5	27
Scarlet fever and pertussis	2	2	..	1	3	4	..	..	..	4
Scarlet fever, measles, and diphtheria	1	..	..	..	..	..	1	..	1	3
Tuberculosis	..	4	202	86	22	108	56	42	98	206
Total	834	540	475	724	670	1,394	216	239	455	1849
Accompanying	9	5	23	7	18	25	3	9	12	37

Discharged.

	Age.			Native.			Foreign.			Total.
	Under 5 years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	241	141	85	186	192	378	40	49	89	467
Scarlet fever	163	265	100	196	211	407	48	73	121	528
Measles	133	75	82	89	96	185	44	61	105	290
Diphtheria and scarlet fever	24	17	..	16	22	38	1	2	3	41
Diphtheria and measles	29	8	1	21	15	36	1	1	2	38
Scarlet fever and measles	19	7	..	7	15	22	..	4	4	26
Scarlet fever and varicella	2	..	..	..	2	2	..	..	..	2
Scarlet fever and pertussis	3	2	..	1	4	5	..	..	..	5
Scarlet fever, measles and diphtheria	1	..	..	..	..	..	1	..	1	1
Tuberculosis	..	2	112	44	11	55	41	18	59	114
Total	615	517	380	560	568	1,128	176	208	384	1512
Accompanying	7	2	24	4	19	23	3	7	10	33

Died.

Diphtheria	99	21	..		60	109	5	6	11	120
Scarlet fever	36	11	3	24	20	44	4	2	6	50
Measles	47	4		24	24	48	2	2	4	52
Diphtheria and scarlet fever	7	1	..	4	4	8	..	..	..	8
Diphtheria and measles	15	..	..	6	7	13	1	1	2	15
Scarlet fever and measles	2	1	..	..	1	1	1	1	2	3
Tuberculosis	..	1	80	31	12	43	23	15	38	81
Total	206	39	84	138	128	266	36	27	63	329
Accompanying	1	..	..	1	..	1	..	..	..	1

Remaining in Hospital December 31, 1905.

	Age.			Natives.			Foreign.			
	Under 5 Years.	5 to 10 Years.	Over 10 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	49	11	6	31	15	50	12	6	18	68
Scarlet fever	2	28	4	9	3	17	11	2	13	30
Measles	12	5	14	12	11	23	7	2	9	32
Diphtheria and scarlet fever	1	..	..	..	1	1	..	..	..	1
Diphtheria and measles	3	..	..	1	1	2	..	1	1	3
Tuberculosis	..	1	76	27	..	27	33	17	50	77
Total	69	38	100	78	40	118	61	28	89	207
Accompanying	1	3	..	2	..	2	..	2	2	4

Recapitulation.

	Remaining December 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1905.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria	3	8	318	324	226	241	...	...	54	66	41	25
Scarlet fever	13	46	269	270	244	284	...	...	28	22	20	10
Measles	5	19	171	184	133	157	...	...	26	26	17	13
Diphtheria and scarlet fever	2	0	17	26	17	24	...	...	4	4	...	1
Diphtheria and measles	6	3	23	25	22	16	...	...	7	8	1	2
Scarlet fever and measles	1	1	8	10	7	10	...	...	1	2	...	..
Scarlet fever and varicella		2	...	...	...	2	...	...	...	...	...	..
Scarlet fever and pertussis	...	1	1	3	1	4	...	...	...	...	...	..
Measles, scarlet fever and diphtheria		...	1	...	1	...	...	...	...	...	...	..
Tuberculosis	17	5	142	64	85	29	...	...	54	27	60	17
Total	107	90	940	907	736	776	...	...	174	155	139	68
Accompanying		1	10	27	7	26	...	...	1	...	2	2

REPORT OF PATIENTS TREATED AT KINGSTON AVENUE HOSPITAL.

Borough of Brooklyn.

General Statement.

1905.	Males.	Females.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital December 31, 1904	68	69	137	62	75	137	11
Admitted	1,090	1,036	2,126	1,125	1,001	2,126	213
Total	1,158	1,105	2,263	1,187	1,076	2,263	224
Discharged	854	818	1,672	842	830	1,672	210
Transferred	80	70	150	84	66	150	2
Died	149	127	276	184	92	276	..
Total	1,083	1,015	2,098	1,110	988	2,098	212
Remaining in Hospital December 31, 1905	75	90	165	77	88	165	12

Remaining in Hospital December 31, 1904.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	9	4	7	9	9	18	1	1	2	20
Scarlet fever	10	18	4	12	13	25	4	3	7	32
Measles	33	16	4	1	1	2	24	27	51	53
Small-pox	2	1	4	2	3	5	..	2	2	7
Varicella	6	2	1	2	1	3	2	4	6	9
Pertussis	5	..	..	4	1	5	..	..	..	5
Diphtheria and scarlet fever	4	1	..	2	2	4	..	1	1	5
Scarlet fever and measles	3	3	..	..	..	..	5	1	6	6
Total	72	45	20	32	30	62	36	39	75	137
Accompanying	..	..	11	..	..	..	..	11	11	11

Admitted.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	167	126	44	162	133	295	23	19	42	337
Scarlet fever	145	184	68	164	141	305	43	49	92	397
Measles	563	273	84	103	114	217	340	363	703	920
Small-pox	8	5	32	16	10	26	11	8	19	45
Varicella	51	27	21	32	17	49	34	16	50	99
Pertussis	80	22	1	49	50	99	2	2	4	103
German measles	4	5	8	2	10	12	1	4	5	17
Diphtheria and scarlet fever	36	22	3	29	23	52	4	5	9	61
Diphtheria and measles	17	8	..	6	4	10	7	8	15	25
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Diphtheria and pertussis	2	..	..	1	1	2	..	..	..	2
Diphtheria, scarlet fever and pertussis	..	2	..	1	1	2	..	..	..	2
Scarlet fever and measles	32	9	..	2	4	6	14	21	35	41
Scarlet fever and varicella	2	1	..	2	1	3	..	..	..	3
Scarlet fever and pertussis	10	4	..	10	4	14	..	..	..	14
Measles and pertussis	15	6	..	7	4	11	4	6	10	21
Measles and varicella	10	3	..	4	2	6	4	3	7	13
Measles, scarlet fever and diphtheria	..	1	..	..	..	..	..	1	1	1
Varicella, measles and scarlet fever	1	..	..	..	..	..	..	1	1	1
Varicella, measles and pertussis	1	..	..	..	1	1	..	..	..	1
Pertussis, measles and scarlet fever	1	..	..	1	..	1	..	..	..	1
Varicella and pertussis	5	..	..	1	4	5	..	..	..	5
Small-pox and scarlet fever	..	..	1	1	..	1	..	..	..	1
Mumps	1	1	4	2	..	2	3	1	4	6
Cerebro-spinal meningitis	..	2	..	1	1	2	..	..	..	2
Total	1,152	701	266	597	525	1,122	490	507	997	2,119
For observation	1	..	6	1	2	3	2	2	4	7
Accompanying	8	..	205	2	7	9	1	203	204	213

Discharged.

	Age.			Native.			Foreign.			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	95	103	47	116	94	210	18	17	35	245
Scarlet fever	89	161	54	119	119	238	36	30	66	304
Measles	452	246	81	86	95	181	287	311	598	779
Small-pox	7	6	32	14	11	25	11	9	20	45
Varicella	49	23	22	27	14	41	35	18	53	94
Pertussis	54	20	1	36	35	71	2	2	4	75
German measles	4	4	8	2	9	11	1	4	5	16
Diphtheria and scarlet fever	13	17	2	16	13	29	1	2	3	32
Diphtheria and measles	7	3	..	2	2	4	3	3	6	10
Cerebro-spinal meningitis	..	2	..	1	1	2	..	..	..	2
Scarlet fever and measles	14	8	..	2	1	3	10	9	19	22
Scarlet fever and varicella	2	1	..	2	1	3	..	..	..	3
Scarlet fever and pertussis	5	3	..	5	3	8	..	..	..	8
Small-pox and scarlet fever	..	..	1	1	..	1	..	..	..	1
Measles and pertussis	7	4	..	2	1	3	4	4	8	11
Measles and varicella	6	3	..	4	1	5	3	1	4	9
Varicella, measles and scarlet fever	1	..	..	..	..	..	..	1	1	1
Varicella, measles and pertussis	1	..	..	..	1	1	..	..	..	1
Varicella and pertussis	1	..	..	..	1	1	..	..	..	1
Mumps	1	1	4	2	..	2	3	1	4	6
Total	808	605	252	437	402	839	414	412	826	1,665
For observation	1	..	6	1	2	3	2	2	4	7
Accompanying	6	..	204	2	6	8	1	201	202	210

Transferred.

	Age.			Native.			Foreign			
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	Total.
Diphtheria	7	8	1	8	5	13	1	2	3	16
Scarlet fever	18	6	3	13	5	18	2	7	9	27
Measles	38	20	..	6	4	10	24	24	48	58
Small-pox	..	..	1	1	..	1	..	..	..	1
Varicella	1	1	..	2	..	2	..	..	..	2
Pertussis	8	..	..	5	3	8	..	..	..	8
German measles	..	1	..	..	1	1	..	..	..	1
Diphtheria and scarlet fever	12	4	1	6	6	12	2	3	5	17
Diphtheria and measles	1	1	..	1	1	2	..	..	..	2
Varicella and pertussis	4	..	..	1	3	4	..	..	..	4
Scarlet fever and measles	1	1	..	..	2	2	..	..	..	2
Diphtheria and pertussis	1	..	..	..	1	1	..	..	..	1
Scarlet fever and pertussis	3	1	..	4	..	4	..	..	..	4
Diphtheria, scarlet fever and pertussis	..	2	..	1	1	2	..	..	..	2
Measles and pertussis	3	..	..	3	..	3	..	..	..	3
Measles and varicella	2	..	..	..	1	1	..	1	1	2
Total	99	45	6	51	33	84	29	37	66	150
Accompanying	1	..	1	..	..	..	..	2	2	2

Died.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	5 to 16 Years.	Over 16 Years.	Males.	Females.	Total.	Males.	Females.	Total.	
Diphtheria	68	13	3	40	39	79	4	1	5	84
Scarlet fever	28	10	4	21	11	32	4	6	10	42
Measles	71	3	..	9	12	21	31	22	53	74
Small-pox	3	..	3	3	2	5	..	1	1	6
Varicella	1	..	..	..	1	1	..	..	..	1
Pertussis	18	1	..	11	8	19	..	..	..	19
Diphtheria and scarlet fever	15	2	..	9	6	15	1	1	2	17
Diphtheria and measles	9	4	..	3	1	4	4	5	9	13
Diphtheria and varicella	1	..	..	1	..	1	..	..	..	1
Diphtheria and pertussis	1	..	..	1	..	1	..	..	..	1
Scarlet fever and measles	11	..	..	..	..	..	4	7	11	11
Scarlet fever and pertussis	2	..	..	1	1	2	..	..	..	2
Measles and pertussis	3	..	..	1	2	3	..	..	..	3
Measles, scarlet fever and diphtheria	..	1	..	..	..	..	..	1	1	1
Pertussis, measles and scarlet fever	1	..	..	1	..	1	..	..	..	1
Total	232	34	10	101	83	184	48	44	92	276

Remaining in Hospital December 31, 1905.

Diphtheria	6	6	..	7	4	11	1	..	1	12
Scarlet fever	20	25	11	23	19	42	5	9	14	56
Measles	35	20	7	3	4	7	22	33	55	62
Varicella	6	5	..	5	3	8	1	2	3	11
Pertussis	5	1	..	1	5	6	..	..	..	6
Scarlet fever and measles	9	3	..	..	1	1	5	6	11	12
Measles and varicella	2	..	..	..	..	..	1	1	2	2
Measles and pertussis	2	2	..	1	1	2	..	2	2	4
Total	85	62	18	40	37	77	35	53	88	165
Accompanying	1	..	11	..	1	1	..	11	11	21

Recapitulation.

	Remaining December 31, 1904.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1905	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females	Males.	Females.
Diphtheria	10	10	185	152	134	111	9	7	44	40	8	4
Scarlet fever	16	16	207	190	155	149	15	12	25	17	28	28
Measles	25	28	443	477	373	406	30	28	40	34	25	37
Small-pox	2	5	27	18	25	20	1	..	3	3	..	..
Varicella	4	5	66	33	62	32	2	..	..	1	6	5
Pertussis	4	1	51	52	38	37	5	3	11	8	1	5
German measles	..	..	3	14	3	13	..	1	..	..	..	..
Mumps	..	..	5	1	5	1	..	..	..	..	..	..
Diphtheria and scarlet fever	2	3	33	28	17	15	8	9	10	7	..	..
Diphtheria and measles	..	..	13	12	5	5	1	1	7	6	..	..
Diphtheria and varicella	..	..	1	..	..	..	..	..	1	..	..	..
Diphtheria and pertussis	..	..	1	1	..	..	..	1	1	..	..	..
Diphtheria, scarlet fever and pertussis	..	..	1	1	..	..	1	1	..	..	..	..
Scarlet fever and measles	5	1	16	25	12	10	..	2	4	7	5	7
Scarlet fever and varicella	..	..	2	1	2	1	..	..	..	..	..	..
Scarlet fever and purtussis	..	..	10	4	5	3	4	..	1	1	..	..
Measles and pertussis	..	..	11	10	6	5	3	..	1	2	1	3
Measles and varicella	..	..	8	5	7	2	..	2	..	..	1	1
Measles, scarlet fever and diphtheria	..	..	..	1	..	..	..	..	..	1	..	..
Varicella and pertussis	..	..	1	4	..	1	1	3	..	..	..	..
Varicella, measles and pertussis	..	..	..	1	..	1	..	..	..	..	..	..
Varicella, measles and scarlet fever	..	..	..	1	..	1	..	..	..	..	..	..
Pertussis, measles and scarlet fever	..	..	1	..	..	..	..	..	1	..	..	..
Cerebro-spinal meningitis	..	..	1	1	1	1	..	..	..	..	..	..
Small-pox and scarlet fever	..	..	1	..	1	..	..	..	..	..	..	..
Total	68	69	1,087	1,032	851	814	80	70	149	127	75	90
For observation	..	..	3	4	3	4	..	..	..	..	..	..
Accompanying	..	11	3	210	3	207	..	2	..	..	..	12

Respectfully submitted,

CHARLES F. ROBERTS, M. D.
Sanitary Superintendent.

STATEMENT OF THE WORK PERFORMED IN THE DIVISION OF INSPECTIONS DURING THE YEAR 1905

The work of this Division is divided into two broad classes,—Sanitary Inspection and Food Inspection,—although frequently the lines of duty laid down for an inspector of one class over-lap, but do not conflict with those of the other.

The Sanitary Inspectors have cognizance of all unsanitary conditions which exist in any building or premises other than those buildings, which, under the law, are classed as tenement houses.

The Inspectors of Food attached to the Division are responsible for the condition of all food sold in the Borough of Manhattan, for all milk brought into The City of New York, and for all milk while being sold in the City, other than the milk which is sold in the Borough of The Bronx, the milk inspection of The Bronx being under the direct charge of the Assistant Sanitary Superintendent of that Borough.

By far the largest percentage of complaints received and acted upon by the Sanitary Inspectors of this Division are those relating to conditions arising from careless and filthy habits. A very large number of the orders issued are those requiring owners or lessees to simply clean up their premises; it would not be necessary to issue many of these if the persons responsible used a proper amount of judgment and forethought, and were impressed with the self-evident fact that it is much easier to keep clean than to remove an accumulation of filth of long standing.

The complaints next in importance, so far as numbers are concerned, are those alleging lack of proper light, ventilation and defective plumbing, and lastly are those complaints of a general character, which cover all manufacturing nuisances, offensive trades, noises due to the carrying on of building operations, and complaints of like character.

Lodging-houses.

There are probably no buildings occupied for living purposes which are in more need of constant supervision by Sanitary Inspectors than those occupied as lodging-houses, and so-called "furnished-room"

houses. These houses are tenanted by persons who are of a more or less roving disposition, who have no particular personal ties with the premises, and are therefore extremely careless in their usage of the property. The Sanitary Code prescribes that for all lodging houses containing rooms in which there are more than three beds for the use of lodgers, or in which more than six persons are allowed to sleep, a permit from the Board of Health shall be required.

In the Borough of Manhattan there are one hundred lodging-houses conducted under permits from the Board of Health. Of this number ninety-three are for the use of men only. Of the remainder three are for the use of women, and the remaining four are for children. The lodging-house operated under permit containing the smallest number is one of twenty-three lodgers; the greatest number of lodgers in any one house is four hundred and eighty-four. There are accommodations for sixteen thousand seven hundred and six lodgers in men's lodging-houses, three hundred and nineteen in those devoted to the use of women, and five hundred and forty-three in those for children, giving this borough a total lodging-house population of seventeen thousand five hundred and sixty-eight.

The Charter of the Greater City of New York requires that the Department of Health shall inspect all lodging-houses at least twice a year. Recognizing the fact that these lodging-houses at best are not in the most desirable sanitary condition, a special inspector has been detailed to the exclusive inspection of these places, it having been found that it is much easier to get them into a reasonable sanitary condition, and maintain them in that way than it was to make the required two inspections a year and try to bring them up to the standard which is required. This inspector devotes his entire time to this work, going from house to house, and keeping in close touch with the situation.

Public Improvements.

During the year just passed two very extensive public improvements have been progressing, namely, the Pennsylvania Terminal work, extending from Seventh to Ninth avenues, and from Thirty-first to Thirty-third streets, and the New York Central Terminal work, extending from Forty-fourth to Fifty-sixth streets, and from Lexington to Park

avenues. These works in their very nature have been productive of quite a number of complaints. These complaints have been against the noise of the machinery employed (more especially at night), the smoke discharged from the hoisting engines and locomotives, and the unavoidable leakage of water from broken sewer-pipes, water-pipes and abandoned house connections. For quite a considerable time it was found advisable to have special inspectors detailed to these two works, in order that all unnecessary nuisances might be prevented. It has been found that almost invariably the contractors engaged in these improvements have been more than willing to meet the Department half way, and to immediately remedy any unsanitary condition which was called to their attention, either verbally by the inspector, or officially through an order from the Department of Health. At the present time, notwithstanding the fact that these two works are progressing night and day, this Department rarely receives a complaint against them.

SLAUGHTER-HOUSES.

The slaughtering industry in the Borough of Manhattan is divided into two general classes—those devoted to the killing of cattle and small stock (the location of which is provided for by section 84 of the Sanitary Code), and those devoted to the killing of poultry, which may be located at any place which the Board deems a proper one. The slaughter-houses other than poultry slaughter-houses are located on the West side, between Thirtyeighth and Forty-first streets and Eleventh avenue and the North river. Those on the East side are between Forty-third and Forty-seventh streets, First avenue and East river. In each of these districts there are inspectors detailed to supervise the slaughtering of animals. It is their duty to examine carefully the animals as they are delivered to the slaughter-houses from the stock yards, to be present on the slaughtering floor as the animals are being killed, and finally to examine the carcasses carefully before same are offered for sale. While these Meat Inspectors are charged primarily with the quality of the meat offered for sale, still, they are, to a certain degree, held responsible for the sanitary condition of the slaughter-houses and their allied industries. In addition, however, there has been an Inspector whose duty it was to make frequent examinations of the slaughter-house districts, the object being to see that the various plants for the disposal of the

necessary slaughter-house waste were run in a careful and sanitary manner. During the year one of the largest disposal plants on the East side has been practically rebuilt, with the most modern methods and improved machinery for the disposal of slaughter-waste. On the West side a new and very large slaughter-house has been constructed to take the place of a number of small and out of date structures. In connection with this slaughter-house there has been erected also a large and modern disposal plant. The presence of these two improved establishments has very materially reduced the possibility of offensive odors arising from the slaughtering industry. No complaints have been received against either of the slaughtering-house districts, which upon investigation were found to be justifiable. This result has been obtained partially by the erection of new slaughter-houses and improvements on the existing one, but is largely owing to the fact that the slaughter-houses have been constantly under the supervision of Inspectors of this Department.

The necessity for slaughter-houses in the heart of this great City may not seem obvious, but when it is taken into consideration that The City of New York has a larger Jewish population than any other city in the world, it can be readily accounted for. The Orthodox Jew cannot, by reason of his religious laws, eat meat which is not kosher. The so-called "kosher" meat is killed under the direct supervision of Rabbis, who are placed in the slaughter-houses for that purpose. Amongst the various definitions of kosher meat is the provision—meat which may have been kosher at the time the animal was killed ceases to be so three days after death. It can thus be readily seen that it would be impossible to kill and prepare the meat for market at any distance from the point of consumption. The necessity for slaughter-houses having been thus established it then becomes necessary to have such a supervision over them that they may be conducted without offense at all times. The actual source of offense is due to the fact that in the slaughtering industry there is a very large percentage of waste products which rapidly become very offensive, and which it is necessary to reduce to an unodorous condition as soon as possible. It is in that part of the plant where this work is carried on that all causes for complaint arise.

The following tables give the number of animals killed for food in the slaughter-houses of the Borough of Manhattan, and the amount of by-products utilized for the year 1905:

	West Side.				
	Cattle.	Sheep.	Calves.	Hogs.	Total.
January	6,097	41,936	3,674	97,330	149,037
February	5,872	37,858	5,207	84,403	133,340
March	5,463	38,720	4,165	82,699	131,047
April	5,694	41,556	6,390	122,447	176,087
May	6,211	34,229	8,664	77,102	126,206
June	5,475	32,198	9,420	85,140	132,233
July	5,715	37,500	8,666	90,666	142,547
August	6,423	52,185	5,642	70,761	135,011
September	10,430	37,902	7,131	68,614	124,077
October	10,964	47,500	7,996	76,836	143,296
November	11,323	51,421	5,398	92,765	160,907
December	9,350	42,611	4,830	84,678	141,469
Total	89,017	495,616	77,183	1,033,441	1,695,257

	East Side.				
	Cattle.	Sheep.	Calves.	Hogs.	Total.
January	24,792	72,388	6,965	.....	104,145
February	27,983	50,497	6,516	.....	84,996
March	26,704	54,143	12,323	.....	93,170
April	25,462	53,078	22,588	.....	101,128
May	26,175	77,572	23,324	.....	127,071
June	24,940	79,376	22,594	.....	126,910
July	25,414	88,426	18,645	.....	132,485
August	28,631	88,380	16,371	.....	133,382
September	27,014	75,722	11,246	.....	113,982
October	26,248	88,748	10,075	.....	125,071
November	28,904	94,748	9,838	.....	133,490
December	29,432	72,699	7,533	.....	109,664
East Side Total	321,699	895,777	168,018	.....	1,385,484
West Side Total	89,017	495,616	77,183	1,033,441	1,695,257
Grand Total	410,716	1,391,393	245,201	1,033,441	3,080,751

By-products.

	East Side.		
	Blood.	Fertilizer.	Fat.
January	60 tons.	160 tons	3,650,000 lbs.
February	80 "	240 "	3,982,000 "
March	75 "	195 "	4,670,210 "
April	80 "	205 "	3,761,357 "
May	95 "	217 "	3,262,852 "
June	81 "	184½ "	3,671,299 "
July	95 "	244 "	3,992,817 "
August	95 "	289 "	4,662,852 "
September	95 "	385 "	3,701,114 "
October	90 "	354 "	4,235,116 "
November	91 "	390 "	5,676,500 "
December	86 "	455 "	5,163,985 "
Total	1,023 tons.	3,318½ tons.	50,430,102 lbs.

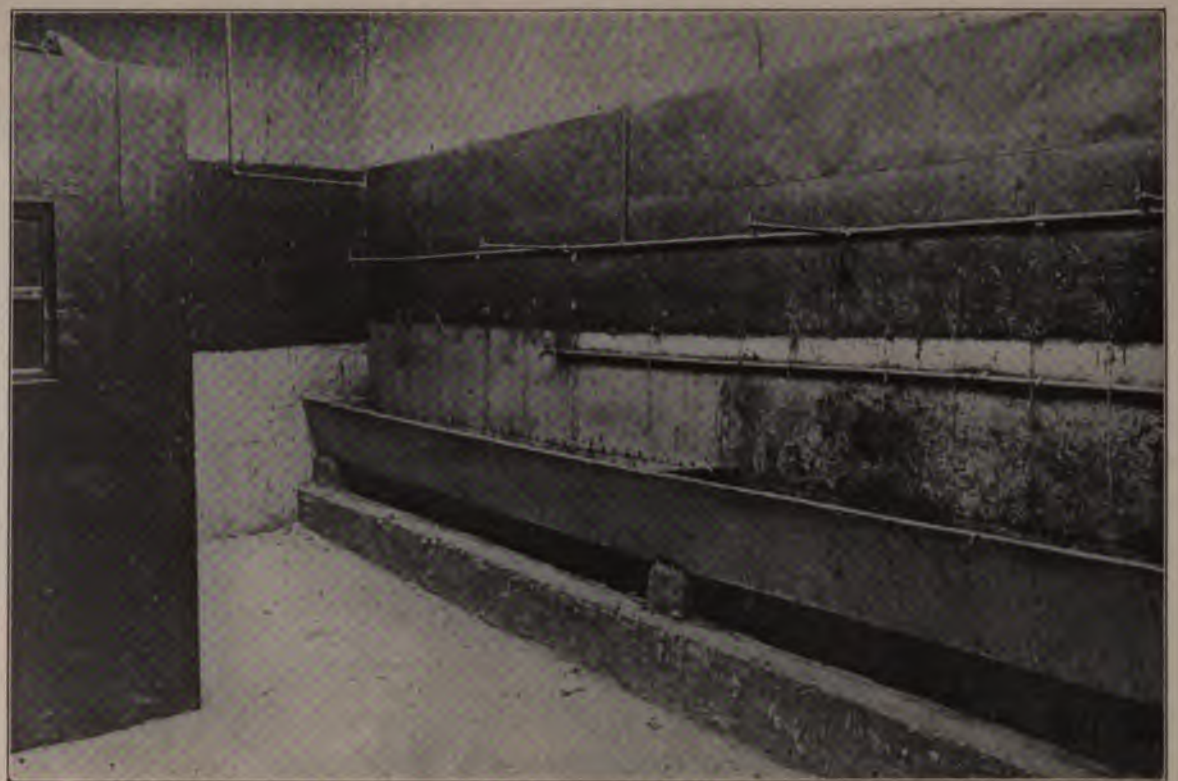
	West Side.		
	Blood.	Fertilizer.	Fat.
January	47 tons.	114 tons.	2,641,288 lbs.
February	45 "	112 "	1,792,500 "
March	43 "	113 "	1,897,500 "
April	45 "	117 "	1,942,930 "
May	52 "	113 "	1,345,550 "
June	54 "	114 "	1,954,590 "
July	58 "	122 "	2,048,670 "
August	58 "	113 "	1,662,040 "
September	72 "	149 "	2,117,130 "
October	83 "	166 "	2,222,700 "
November	95 "	160 "	1,290,200 "
December	78 "	144 "	2,051,920 "
West Side Total	730 tons.	1,537 tons.	22,967,018 lbs.
East Side Total	1,023 "	3,318½ "	50,430,102 "
Grand Total	1,753 tons.	4,855½ tons.	73,397,120 lbs.

Poultry Slaughter Houses.

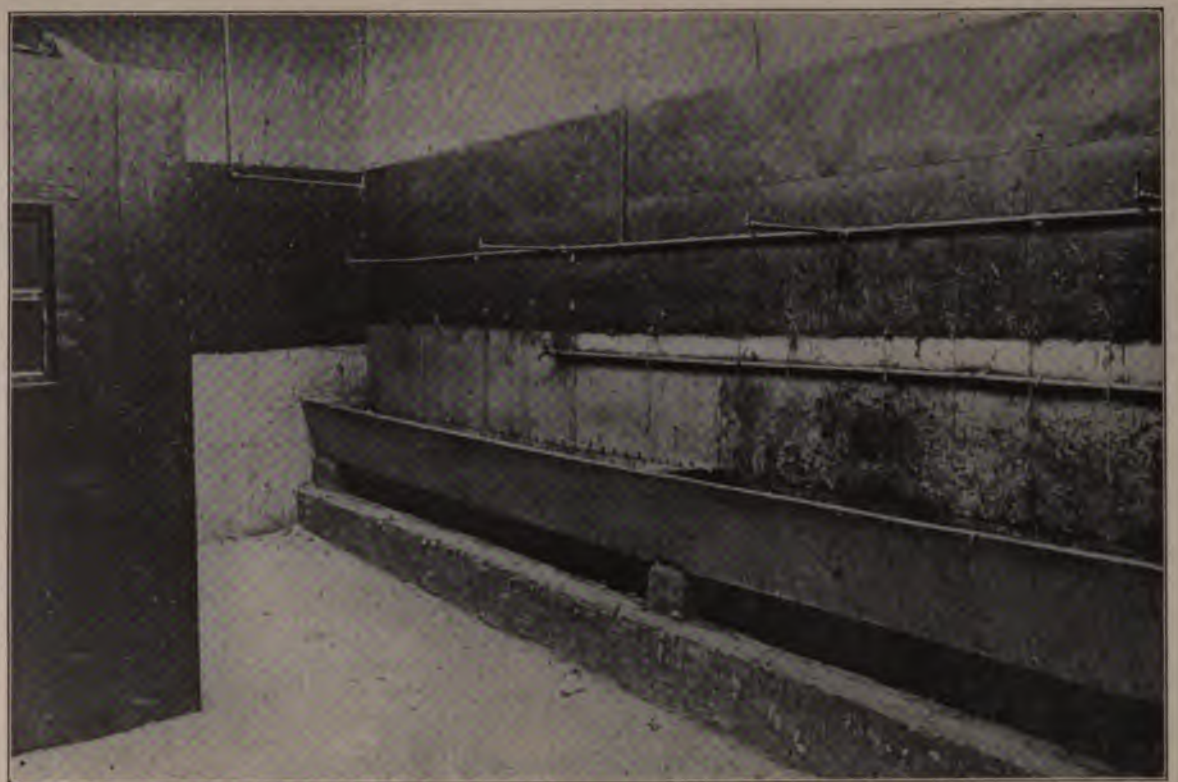
The same reason for the existence of poultry slaughter houses obtains, as already has been explained, for the cattle slaughter houses. From the very nature of the animals handled, unless the establishments are kept scrupulously clean, they are a constant source of offense. In order to maintain the chicken slaughter houses in as inoffensive a manner as possible, it has been necessary to have one inspector detailed to keep them under constant supervision, and, notwithstanding his efforts, it has been necessary to recommend to the Board of Health the revocation of two or three permits, owing to the unsanitary conditions in which the premises had been allowed to get. As the Jewish population increases, and the call for kosher poultry increases in like proportion, it has seemed desirable to grant additional permits for poultry slaughter houses, and where we had twenty-two on January 1, 1905, on December 31, 1905, there were thirty.

There is a business closely allied to that of the poultry slaughter-houses, namely, the keeping and sale of live poultry in crates. This business is conducted almost exclusively in Washington and West Washington Market, and is in reality a sort of clearing house for the poultry slaughter-houses. The poultry coming into the City from the large western shippers is sold on commission by the holders of these permits. Their premises are also kept under more or less constant supervision, and earnest effort is made to prevent any unnecessary nuisance from the business.

During the year 1905, 4,366,297 heads of poultry were slaughtered for food.



TYPICAL KILLING ROOM OF A POULTRY SLAUGHTER HOUSE.



TYPICAL KILLING ROOM OF A POULTRY SLAUGHTER HOUSE.

Public Markets.

The four oldest markets, Union, Centre, Clinton and Catharine Markets, having been condemned and torn down for various municipal improvements, the number of these markets in the Borough has been reduced to five, as follows:

Fulton Market, which is essentially the wholesale fish market. Washington and West Washington Markets, which are general markets. The Farmers' Market, which is an outside or open market for the sale of vegetables and fruit, Thompson and Jefferson Markets, which are markets devoted largely to the retail trade.

In Washington and West Washington Markets there is detailed a meat inspector constantly; it is his duty to examine all meats offered for sale in these markets, and during the spring of the year he is kept especially busy in preventing the sale of "bob-veal." The work performed in the other markets from its special nature will be more fully spoken of in the report of the Supervising Inspector of Foods. Such of these markets as are carried on in buildings were recently examined by a Sanitary Inspector detailed to this work, and found to be in good condition.

Smoke.

The smoke nuisance is one which has called for very little action on the part of this Department during the year 1905. The constant effort of the Department in years gone by to control this annoying and offensive nuisance has brought such good results that very few, if any, real nuisances exist in the Borough of Manhattan at the present time. There are six large power houses consuming an enormous quantity of coal every twenty-four hours, and producing a great amount of electrical power. This power is utilized in lighting hotels, theaters, public buildings, the public streets, and in operating the three great systems of transportation, the subway, the surface railways, and the elevated roads. All of these plants have been conducted, through the co-operation of the managing officials, with very little, if any, discharge of smoke, with one exception, and in that case the operating officials have made very strong efforts within the past two or three months to entirely discontinue the discharge of smoke and abate any nuisance which may exist. The

nuisance from railroad locomotives, through the co-operation of the officials of the New York Central Railway has been practically removed from this Borough. The main line of the New York Central, from Harlem river to One Hundred and Thirty-eighth street to Forty-second street is kept under constant supervision by inspectors employed by the railroad company, whose duty it is to note the number of locomotives detected in discharging smoke, together with the time of the occurrence. A similar state of affairs exists on the Hudson River Division, 30th street and Ninth avenue to Spuyten Duyvil Creek. The engineer and the fireman of the offending locomotive are immediately disciplined severely by the railroad company. Consequently, there is no smoke of any moment discharged from the locomotives of railroads in this borough.

Work Performed by the Sanitary Inspectors, 1905.

Number of primary inspections	55,354
Number of reinspections	26,847
Total	82,201

Sanitary Police.

By direction of the Charter, the Commissioner of Police is required to detail to this Department a certain number of officers and patrolmen of the Police Force. This squad, which is commanded by a Sergeant of Police, is known as the Health Squad. There is detailed for duty in the Borough of Manhattan one roundsman and thirty-nine patrolmen. This squad is a very useful adjunct to the work of the Division. The inspections made by the patrolmen cover a great variety of nuisances, including amongst others, noisy and barking dogs, shaking and beating carpets, filthy ash and garbage cans, dirty lots, noise nuisances arising from various sources, the proper handling and removal of manure from horse stables, and many other complaints of like character. In addition, the squad is very frequently employed in enforcing the orders of the Board, assisting inspectors to gain admittance to premises, making arrests for various violations of the Sanitary Code, and lastly, seeing that the conditions of the permits issued by the

Sanitary Superintendent for the transportation of refuse are properly complied with. The following table gives the number of arrests for various violations of the Sanitary Code and other Health Laws, together with the disposition of these cases:

Section Violated.	No. of Arrests.	Fined.	Sentence Suspended.	Discharged.	Cases Pending in Special Sessions Court.	T:	Amount Fines.
8	2	.....	..	2	..	2	....
12	6	2	..	3	1	6	$10 00
33	1	.....	..	1	..	1	.....
41	2	2	..	...	..	2	4 00
42	14	12	..	2	..	14	35 00
45	210	190	..	20	..	210	400 00
46	600	513	1	86	..	600	1,026 00
48	1	1	..	...	..	1	5 00
68	1	1	..	...	..	1	5 00
74	7	1	1	3	2	7	5 00
79	57	42	3	4	8	57	383 00
80	4	1	2	1	..	4	10 00
81	3	1	..	1	1	3	2 00
87	8	6	..	2	..	8	32 00
96	1	.....	..	1	..	1	.....
97	21	18	..	3	..	21	80 00
103	2	2	..	...	..	2	8 00
109	99	89	1	9	..	99	233 00
118	84	59	3	16	6	84	786 00
119	94	79	5	9	1	94	372 00
121	4	4	..	...	..	4	25 00
137	1	1	..	...	..	1	5 00
162	3	2	..	1	..	3	275 00
178	1,059	801	..	258	..	1,059	1,306 00
Violation Corporation Ordinance	4	4	..	...	..	4	30 00
385 Penal Code	2	.....	..	2	..	2	.....
1262 Charter	20	.....	3	9	8	20	.....
162 Mercantile Law.	5	2	..	3	..	5	23 00
	2,318	1,835	19	437	27	2,318	$5,063 00

In addition to making these arrests, the squad has also made the number of inspections in the following table:

Number of primary inspections	209,347
Number of reinspections	18,804
Total	228,151
Number of nuisances abated by personal effort	16,785

MERCANTILE.

This Division is also charged with the enforcement of the provisions of chapter 415, Laws of 1897, as amended, which relate to the employment of women and children in mercantile establishments, and to the issuance of so-called " working papers " to children between the ages of fourteeen and sixteen years. The various district Sanitary Inspectors are required to make in their districts at least twenty inspections of mercantile establishments apiece each week. In addition to this there is a special inspector detailed, who has charge of the enforcement of the law in the larger or so-called "Department Stores." He keeps these stores under constant supervision, and during the holiday season is assisted by other inspectors temporarily assigned to this duty. On December 23, a large number of inspections were made of the stores in which the holiday rush was at its height, and only one shop was found in which there was a serious violation of the Mercantile law, emphasizing the completeness of his work. By far, the most important provision of the law with which the Department has to do is the issuance of the Mercantile Certificate. The law is very specific in the requirements with which a child must comply before obtaining one of these certificates. He must first furnish documentary evidence of his age, approved by the law. He must also supply a statement from his teacher or from the executive officer of the school which he last attended, showing that he has received at least 130 days' instruction since his thirteenth birthday in reading, spelling, writing, English Grammar and Geography,

and is familiar with the fundamental operations of arithmetic, up to and including fractions. The officer issuing the certificate must certify that the child has placed on file these two documents, and also that he is able to read and write simple sentences in the English language, and has reached the normal development of a child of its age, and is sound in health, and is physically able to do the work which he intends to do. Naturally, the applications for these employment certificates are from the parents of children who are unable to support them and continue them in their education, and the temptation is very great to obtain a Mercantile Certificate at almost any cost. Therefore, it requires constant alertness on the part of the inspectors issuing these papers to prevent fraud, either intentional or unintentional. At the last session of the Legislature, it having been found that the records required by law, namely a transcript of birth record, a passport, a transcript of baptism, or other religious record was working grave injustice to many children, and to Jewish girls especially, they being unable to obtain any religious record, the law was amended so as to permit the Board of Health at a regular meeting to accept other documentary evidences than the ones above mentioned. This amendment has worked very satisfactorily, and has resulted in the granting of certificates to a number of children who, under the law, were unjustly deprived of their certificates. Since this law went into effect there has been presented to the Board for its consideration one hundred and ninety-one applications, all of which, after due consideration, have been ordered placed on file, and the asked for certificates granted. Amongst the different forms of proofs of age those accepted are certificates of graduation, certificates from the Commissioner of Immigration that a child entered the port of New York at a given date, at which time it was known to be of a certain age; and in addition to these there are old vaccination certificates, family bibles and other records, certificates of attending physicians at a very early age, etc. During the year the work set forth in

the following table was performed by the inspectors of this Division in enforcing the Mercantile Law:

Number of inspections of mercantile establishments	20,733
Number of children interviewed applying for certificates	29,836
Number of employment certificates granted	9,721
Number of duplicate employment certificates issued	350
Number refused by reason of insufficient education	380
Number refused by reason of insufficient tuition	1,014
Number refused by reason of insufficient evidence as to birth	2,051
Number refused by reason of physical incapacity	16
Number of applicants under age	502
Number of applicants over age	88
Total refused	4,051

Early in April of this year the Chief Sanitary Inspector was directed to have an inspection of all the theaters in the Borough of Brooklyn, paying especial attention to the condition of these premises as regards the safety of the audience in case of fire or panic. Sanitary Inspector Daniel T. Kenney was assigned to this work, and he made a thorough and careful inspection of every theater in that borough. As a result of his inspections very comprehensive orders were issued by the Board of Health on theaters, of which the following is a typical one:

"DEPARTMENT OF HEALTH, CITY OF NEW YORK,
S. W. Cor. 55th Street and Sixth Avenue,
Borough of Manhattan.

To the Owner, Manager, Agent, Lessee or person in charge of the premises Nos.....Borough of Brooklyn, City of New York, known as the.....Theater.

SIR—Take notice that you are hereby ordered and required by the Board of Health of the Department of Health of The City of New York, pursuant to the provisions of section 1176 of the Greater New York Charter to alter and otherwise improve the premises Nos.....

Borough of Brooklyn, City and State of New York, known as the .....Theater, as herein specified, to wit:

1. That all exits be properly marked by letters and numbers, and lighted by red lights.

2. That all exit doors be made to open outwardly, and be provided with fastenings on the inside which are readily opened at any and all times, and which are uniform throughout the building; fastenings which require the use of keys from the inside will not be permitted.

3. That the seats be rearranged so that they shall be not less than thirty-two (32) inches from back to back; that not more than six (6) seats intervene between any one seat and an isle on either side, and that the widths of the aisles be made to conform to the requirements of the Building Code.

4. That the wooden benches in the gallery be removed, and replaced by chairs so arranged that they shall be not less than thirty-two (32) inches from back to back, and that not more than six (6) seats intervene between any one seat and an aisle on either side; or that the present benches be divided by separating arms or partitions so that not more than six (6) seats shall intervene between any one seat and the nearest aisle; and that the aisles have the widths required by the Building Code.

5. That a proper standpipe system, with the necessary hose, be provided in the auditorium.

6. That the use of gas in the auditorium and under the stage be discontinued.

7. That the diagrams on programs be made to show the exact location of the exits actually in use; the points to which each exit leads, and that they be not less than fifteen (15) square inches in size.

8. That all scenery, curtains, decorations, etc., made of combustible materials, and all woodwork on or about the stage be painted or saturated with some non-combustible material, or otherwise rendered safe against fire.

9. That the storage of scenery, costumes and other inflammable material on and under the stage be discontinued.

10. That the rigging loft be built of iron, or that the present rigging loft be covered with metal or some other non-combustible material.

11. That an automatic sprinkler system be provided over the stage.

12. That automatic skylights be provided over the stage, and that wire nets be placed beneath them; that the skylight ropes be carried to the stage level, and that they be properly marked.

13. That an automatic asbestos curtain, properly hung, and running on iron sheaves and in iron grooves, be provided.

14. That all lawful openings in the proscenium wall, and all openings between the scenery, property and dressing rooms and the stage, be provided with suitable automatic fire-proof doors.

15. That the storage of scenery or other inflammable material beneath the stage be discontinued.

16. That the use of gas in the dressing rooms be discontinued, or that the size of the jets be so reduced and the jets be so protected as to preclude the danger of fire.

17. That all tables, shelves, doors and partitions of dressing rooms be made of non-inflammable material, or that they be covered with metal.

18. That the treads of the steps in the aisles of the balcony, the stairs leading to the balcony from the main lobby, and the portions of the floor on the balcony which are broken, worn and dangerous be repaired and made safe.

19. That the doors which open on the stairways leading to and from the side stairways from the balcony be removed.

20. That a handrail be provided in the middle and on each side of the stairs leading from the orchestra to the lobby.

21. That the box-office located in the centre of the main lobby, thereby causing an obstruction, be removed.

22. That the opening in the proscenium wall in the cellar, near the ceiling, be bricked up.

23. That the ten dressing rooms located beneath the stage be removed.

24. That an exit be provided for the side of the gallery which has not one at the present time.

25. That the spot light on the balcony be properly protected.

By order of the Board of Health,

(Signed) EUGENE W. SCHEFFER,
Secretary."

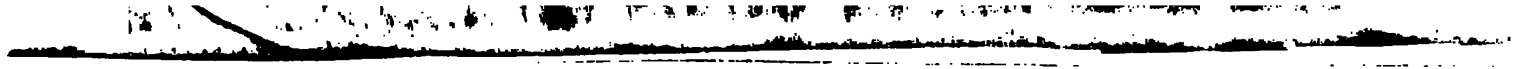
The owners and managers were notified that they would have a reasonable length of time in which to comply with these orders, but they would be expected to have all the essential recommendations complied with before the theatres were open to the public for the fall season of 1905. Early in August a reinspection was made of all the theatres, and it was found that a very large proportion, nineteen out of twenty-one, had failed absolutely to comply with the orders of the Board of Health. This matter was reported through the Assistant Sanitary Superintendent and the Sanitary Superintendent to the Board of Health who thereupon, in accordance with section 1299 of the Greater City of New York Charter, ordered that the above named premises be declared vacated, and their use as a theatre discontinued until such time as the defects were removed or remedied. Up to this time it was apparently the intention of the owners and managers of the theatres to ignore the orders of the Board of Health, but immediately upon receipt of the vacation notice a number of the interested parties entered into a conference and endeavored to carry out the provisions of these orders to the satisfaction of the Board. It was found, however, that at the advertised time of opening the various theatres that there were four which had not sufficiently complied with the orders of the Board, and it became necessary to close these theatres to the public until such time as the safety of the audiences were properly safeguarded. At the present time all of the theatres in the Borough of Brooklyn have entirely complied with the orders of the Board of Health, with the exception of four, one of which is not open to the public; the uncomplied with portions of the orders in relation to these theatres are all of minor importance, and do

not jeopardize to any extent the safety of the audiences therein. It must always be borne in mind that the gravest danger to the audience in a theatre or other place of public amusement is not the actual contact with fire or suffocation by the smoke, but is due to the congestion at exits and the danger to life and limb in an unnecessary panic. The object of the orders has been to remove so far as possible any cause for panic, and to provide the audiences with a sufficient number of exits, suitably placed, to allow of their prompt egress from the theatres in case of danger.

Permits to Collect and Transport Refuse Materials.

This Division is charged with the issuance, under the direction of the Assistant Sanitary Superintendent, of permits to transport and collect stable manure, fat and bones, swill, garbage and grease. These permits are issued from time to time, and all expire on the 31st of December of each year. The various places where these materials are delivered are kept under constant supervision by the Sanitary Inspectors or the patrolmen of the Health Squad detailed to see that the material is transported in a sanitary and inoffensive manner and in accordance with the terms of the permit. Other patrolmen furnished with bicycles are detailed to patrol the streets of the borough and also enforce the conditions of the permits. As a result these materials are collected and removed with as much expedition as possible, and in as inoffensive a manner as the nature of the substance would permit. In the year 1905 there were issued

Permits to transport manure	998
Permits to transport fat and bones	190
Permits to transport garbage	39
Permits to transport swill	53
Permits to transport grease	3
Total number of permits to transport refuse	1,283



Inspection of Foods.

The second great subdivision of the work of this Division is the Inspection of Foods. This work consists of the inspection of milk, meats, fruits, vegetables and fish. The inspection of milk and meat has been carried on as part of the regular work of the Division. The inspection of fruits, vegetables and fish has been placed under the charge of the Supervising Inspector of Foods, whose report will be found attached hereto. On the first of January of this year the inspection of milk in all the boroughs except The Bronx was transferred from the Chemist to the Chief Sanitary Inspector. The inspection of the milk supply in the Borough of The Bronx has remained under the Assistant Sanitary Superintendent of that borough.

Milk.

The milk supply of the City is obtained from a very large area. It is brought to the City from parts of five different States, namely, New Jersey, Pennsylvania, New York, Massachusetts and Connecticut. By far the largest proportion of this milk comes from New York State, then comes New Jersey and Pennsylvania. A comparatively small amount comes from Connecticut, and very little at present from Massachusetts. It is reported, however, that before any great length of time has elapsed milk will be brought from Vermont, and possibly Ohio. Of course, much of this milk is brought from very great distances, the farthest haul at present is from Messana Springs, St. Lawrence County, New York. This station is on the Rome, Watertown and Ogdensburg branch of the New York Central Railroad, and is situated about 400 miles from the City. Considerable milk also comes from as far west as Syracuse. The nearest creamery from which milk is supplied is in Westchester County, Golden's Bridge, about forty-three and a half miles distant. There is a comparatively small amount of milk shipped from nearer points, but in those cases the milk is shipped directly from farms to dealers in the City, without first going through a creamery or shipping station. It is a fact that nearly all the milk received in New York City from various points is equally fresh, that is, milk hauled from great distances reaches the City and is placed in

consumption at nearly the same age as milk which is hauled from a comparatively small distance. Nearly all milk is received at the creameries and shipping stations in the morning, this milk of course being that which is drawn the previous night, and on the morning of which it is hauled. This milk is shipped to New York, arriving here at about midnight of the same day, and is in the hands of the consumer the following morning; thus, practically all milk is from twenty-four to thirty-six hours old. Milk which comes from nearby points is also of the same age, the difference being that it is shipped from the station at a later hour in the day. Milk from the farthest point is shipped about seven or eight o'clock in the morning. That from nearby points is in some cases shipped as late as six in the afternoon. The only exception to this rule is that at some of the farther points the morning milk is held over until the following day, thus making it twenty-four hours older.

PHOTO No. 1, SHOWING WOODEN DRAINS AND FILTHY GROUND.

PHOTO No. 2, SHOWING LEAKAGE FROM A DEFECTIVE FLOOR.

Very early in the year it was realized that the Department had done as much as lay in its power to preserve the purity of the milk supply in the City, and it was felt that it was necessary to take up the investigation of the milk supply at its very source, and inspectors were sent into the country to inspect the farms on which the milk was produced and the creameries through which the milk was transported to the City. Through the co-operation of the officials of the various railroads extended trips were taken in trains placed at the disposal of the inspectors of this Department, and an opportunity given to inspect and examine every creamery situated along the Right of Way at which milk was received and handled before being transported for consumption in The City of New York.

Railroads.	Number of Creameries Inspected.
Ontario and Western	65
Delaware, Lackawanna and Western	54
Erie	86
New York Central	121
Total number of creameries inspected	326

After each one of these trips the owners and operators of the creameries were summoned to this office by the Chief Sanitary Inspector, and the unsanitary conditions found in the various places brought to their attention.

Railroad.	Number Creameries.	Daily Amount of Milk, Cream and Condensed Milk Supplied to New York City.
Rome, Watertown and Ogdensburg Division and tributaries...	99	337,200 quarts.
West Shore and tributaries.....	70	116,400 "
Harlem.....	20	38,640 "
New York and Northern.....	4	7,680 "
Erie.....	82	273,600 "
New York, Ontario and Western.....	111	283,200 "
Delaware, Lackawanna and Western	85	316,800 "
New York, Susquehanna and Western.....	8	22,560 "
Central Railroad of New Jersey.....	15	8.160 "
New York, New Haven and Hartford Railroad and tributaries	38	67,200 "
Newburg Boat	(varies)	34,800 "
Other sources	.....	29,760 "
Total.....	532	1,536,000 quarts.

PHOTO No. 3. SHOWING DIRT AND USELESS MATERIAL IN A DARK CREAMERY.

PHOTO No. 4, SHOWING A DARK CREAMERY WITH MUCH USELESS MATERIAL LYING ABOUT.

The total number of creameries does not include all those situated away from any railroad line.

Numerous suggestions were made looking to the improvement of the creameries, and a set of rules and regulations prepared for the guidance of creamery managers, which have been or shortly will be sent to every creamery shipping milk into The City of New York.

These rules are as follows:

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK.

As a condition to the issuance of permits for the sale of milk in The City of New York, all places where such milk is produced or handled must be open to inspection by employees of the Department of Health of The City of New York.

RULES AND REGULATIONS WHICH MUST BE OBSERVED BY THOSE OPERATING CREAMERIES AND STATIONS SHIPPING MILK FOR USE IN NEW YORK CITY.

The Buildings.

1. The floors of these buildings must be constructed of some material which will render them water-tight, and must be graded and drained toward one or more points from which water must be carried away by suitable drains. Floors of cement or stone are the best for this purpose.

2. The floors must be drained by water-tight gutters, either into cesspools so situated as not to be offensive, or conducted to such a distance as not to cause a nuisance.

3. The water used for cleaning the pails, cans and other utensils must be from a public water supply, or, if drawn from a well or spring, must be approved by this Department.

PHOTO No. 5, SHOWING LAUNDRY APPLIANCES AND OTHER USELESS MATERIAL LYING ABOUT CREAMERY.

4. The milk room must be used for no purpose other than the handling of milk, and must be clean and well ventilated.

5. Premises must at all times be free from a collection of water, rubbish or any offensive material.

6. Cooling tanks for milk must be tightly constructed of non-absorbing material and frequently cleaned. The water must be changed so frequently as not to become offensive.

7. Walls and ceilings must be kept clean.

8. Aerators and coolers must be protected from dust and from impure air.

The Employes.

1. No person suffering from a contagious disease or one in attendance upon such patient shall be employed in the handling of milk or milk utensils.

2. All employes who handle milk and milk utensils must be cleanly in their habits. The garments worn by such employes must be kept in a clean condition.

3. Spitting in or upon any part of the building must be absolutely prohibited.

The Milk.

1. Milk of a temperature above sixty degrees must not be received at the creamery or shipping station.

2. Milk must be handled as little as possible and all unnecessary exposure to the air must be avoided.

3. Milk must be rapidly cooled to a temperature of fifty degrees or less, and so kept until shipped.

4. All pipes through which milk is allowed to flow must be so arranged as to be easily and thoroughly cleaned.

5. All milk utensils, including cans and bottles, must be kept clean and sterile.

6. Managers of creameries and receiving stations will be expected to refuse milk from farmers who do not observe the rules of this Department.

RECOMMENDATIONS.

1. In addition to the foregoing rules, the observance of which the Department of Health demands, the following recommendations in the construction of creameries and the handling of milk are presented:

a. Creameries should be well lighted. Ventilation should be ample, preferably through the roof.

b. Milk should be handled in rooms supplied with natural light.

c. Creameries should be so arranged that the milk may flow by gravity from the point where it is received to its final point of handling. Pumps, which are always difficult to keep clean, should never be used.

d. Outside dust should be prevented from entering the room where milk is handled, and flies should be excluded.

e. The rooms should be plastered or ceiled to avoid places where dust may gather.

PHOTO No. 6—CREAMERY IN ORANGE COUNTY BEFORE REPAIRS WERE MADE, SHOWING TRAP DOOR IN FLOOR.

PHOTO NO. 7—SAME CREAMERY AFTER REPAIRS WERE MADE.

f. Frequent painting or whitewashing is strongly urged.

g. The receiving tanks, mixing vats and tanks upon the bottling tables should be provided with covers.

By order of the Board of Health,

EUGENE W. SCHEFFER, *Secretary.*

THOMAS DARLINGTON, M. D., *Commissioner.*

In addition to these rules the following set of rules, regulations and suggestions have been prepared for the use of the farmers, and these also have been furnished or will be furnished shortly to all of the farms shipping milk to the various stations:

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK.

RULES AND REGULATIONS WHICH MUST BE OBSERVED BY FARMERS AND DAIRYMEN IN THE CARE OF COWS AND HANDLING OF MILK SHIPPED TO THE CITY OF NEW YORK.

The Cows.

1. The cows must be kept clean.

2. Manure must not be permitted to collect upon the tail, sides, udder and belly of any milch cow.

Stables.

1. Cow stables must be well lighted and ventilated.

2. Floors must be tight and well drained.

3. Manure must be removed from the stalls and gutters before the morning milking and also before the afternoon milking, where the cows remain in the stables all day.

4. Walls and ceilings must be kept clean.

5. The ceilings must be so constructed that dust and dirt therefrom shall not readily fall to the floor or into the milk.

6. Stables must be whitewashed at least once a year.

The Water Supply.

1. The water used in the barn and for washing milk utensils must be free from contamination.

The Milk House.

1. A milk house must be provided which is separated from stable and dwelling house.

PHOTO No. 8—ORANGE COUNTY CREAMERY, SHOWING RESULTS OF LEAKING FLOOR.

PHOTO No. 9—THE SAME CREAMERY AFTER FLOOR AND DRAINAGE PLAN HAD BEEN CHANGED.

The Milkers.

1. No person having any communicable disease, or one caring for persons having such disease, must be allowed to handle the milk or milk utensils.

2. The hands of the milkers must be carefully washed immediately before milking.

The Utensils.

1. All milk utensils, including pails, cans, strainers and dippers, must be kept thoroughly clean and must be washed and scalded after each using.

The Milk.

1. Milk from diseased cows must not be shipped.

2. The milk must not be in any way adulterated.

3. The straining of milk must be done in the milk house only.

4. All milk must be cooled to a temperature not above fifty-five degrees witihn two hours after being drawn, and kept thereafter below that, and must be cooled to fifty degrees or less if not delivered at the creamery twice daily.

5. The use of any preservative or coloring matter is an adulteration and its use by a producer or shipper will be a sufficient cause for the exclusion of his product from The City of New York.

RECOMMENDATIONS.

In addition to the preceding rules, the Department makes the following recommendations:

The Barn Yard.

1. It should be well drained and dry and should be as much sheltered as possible from the wind and cold.

2. Manure should not be allowed to collect in the barn yard and should not be at any time in contact with the stable or milk house.

The Stable.

1. The cow stable should have an abundance of light and ventilation. The ventilation should preferably be from the top.

2. There should be at least 600 feet of air space for each cow.

3. It is desirable that the place where cows are kept be used for no other purpose. A cow barn should not be used as a storage place for straw, hay or other feeds, or as a wagon or tool house, as the dust and dirt which accumulates in a place of this character is liable to drop into the milk while being drawn.

4. Stable floor should be made tight and be of some non-absorbent material.

5. Cement or brick floors are the best, as they can be more easily kept clean than wood or earth.

PHOTO No. 10—INTERIOR OF CREAMERY BEFORE REPAIRS WERE MADE.

PHOTO No. 11—THE SAME FLOOR AFTER REPAIRS WERE COMPLETED.

6. If the space over the cows is used for storage of hay, the ceiling should be made tight to prevent chaff and dust falling through.

The practice, somewhat common among farmers, of packing hay, etc., on loose poles over the cows is exceedingly bad, since it invites the collection of dust and cobwebs, and the difficulty of keeping the stable clean is increased.

7. The stable should be whitewashed twice a year.

8. The manure gutter should be from six to eight inches deep and should be kept free from manure.

9. The use of land plaster or lime is recommended upon the floors and gutters.

10. The flooring where the cows stand should be short enough so that all manure will be dropped into the gutter and not upon the floor itself.

11. The floor should be swept at least an hour before milking in order that the dust may have a chance to settle before the milking is begun.

12. If individual drinking basins are used for the cows they should be frequently drained and cleaned.

The Cows.

1. The cows should be kept at all times in a healthy condition, and an examination by a veterinary surgeon should be made twice a year.

2. The cows should be groomed daily and all collection of manure, mud or other filth should not be allowed to remain upon their flanks,

3. The clipping of long hairs from the udder and the right side of the cow is of assistance in preventing the collection of filth, which may drop into the milk.

4. The tails should be cut so that the brush should be well above the ground.

5. In winter the tail may be clipped.

6. The cows should be bedded with sawdust, shavings, dried leaves, straw or some equally clean material.

7. The use of horse manure for bedding is to be condemned.

8. To prevent the cows from lying down and getting dirty, between cleaning and milking, a throat latch of rope or chain should be fastened across the stanchions under the cow's neck.

The Milking and Milkers.

1. The milkers should be clean.

2. Their hands should be thoroughly washed with soap and water and carefully dried on clean towels before milking.

3. Clean overalls and jumpers should be worn during the milking of the cows—should be used for no other purpose—and when not in use should be kept in a clean place protected from dust.

4. The hands and teats should be kept dry during milking.

5. The practice of moistening the hands with milk is to be condemned.

6. The first few streams from each teat should be rejected, as this contains more bacteria than the rest of the milk.

PHOTO No. 12—CREAMERY BEFORE REPAIRS WERE MADE.

PHOTO No. 13—SAME CREAMERY AFTER CHANGES WERE COMPLETED.

7. All milk drawn from the cows thirty days before and ten days after calving should be rejected, and also all milk from diseased cows.

8. The pails in which the milk is drawn should have as small an opening at the top as can be used in milking. This renders the collection of dust less likely.

9. The milking should be done rapidly and quietly, and the cows should be treated kindly.

10. Dry fodder should not be fed to the cows during or just before milking, as dust therefrom will fall into the milk.

The Milk.

1. The milk should be removed as soon as drawn to the milk house, and strained and cooled to the proper temperature at once.

2. A good plan is to strain the milk into cans which are standing in ice water which reaches the neck of the can.

3. The more rapidly the milk is cooled, the safer it is, and the longer it will keep sweet.

4. Ice should be used in cooling, as very few springs are cold enough for the purpose.

5. If aerators are used, they should stand where the air is free from dust or odor, and on no account should they be used in a stable.

6. Milk strainers should be kept exceedingly clean, and scalded a second time just before using, and if cloth strainers are used, several of them should be provided in order that they may be frequently changed during the straining of the milk.

By order of the Board of Health,

THOMAS DARLINGTON, M. D.,
Commissioner.

EUGENE W. SCHEFFER,
Secretary.

It is of course understood that the Inspectors of the Department of Health have no authority outside of the geographical limits of the City, but it must be remembered that the Sanitary Code requires that "No milk shall be received, held, kept, offered for sale or delivered in The City of New York without a permit from the Board of Health, subject to the conditions thereof" (section 56). Always bearing this fact in mind that when the unsanitary conditions were pointed out to the operators of the creamery they were told that it was recognized that the Department of Health had no authority to enforce these orders directly, but they would consider that milk produced and handled in a creamery in unsanitary conditions was milk which was not proper to offer for sale under the terms of the permit granted by the Board of Health, and therefore, in order to continue selling milk under their permits they would be expected to place their premises in good sanitary condition at the earliest possible moment. A very large percentage of the creameries inspected during the spring have been reinspected, and the Inspector's reports show that in very many instances all of the recommendations of the Department were fully lived up to. In making the inspections of the creameries there were certain fundamental conditions which were always inquired into, namely, that ample and uncontaminated water supply was furnished to the creamery, that an ample and satisfactory method of disposing of the drainage from the creamery was obtained, that all milk while being handled for bottling and canning, and while being stored in the creamery, was kept at such a temperature as to prevent the undue growth of bacteria, and that this milk was also protected from the liability of contamination by flying particles of dust and dirt. All of these recommendations were made solely with the object in view of providing that a supply of pure milk was offered for sale in the City. In some instances poultry and pigs were discovered roaming around the buildings and premises occupied as creameries. These were ordered removed forthwith, and in all instances prompt compliance was the result. In some few cases it was found that the creameries were being used by large families for living and other domestic purposes, as well as for the care and handling of milk. This practice was discontinued also. During the year several cases of infection in the City of various kinds were apparently traced to the milk.

PHOTO No. 14—CREAMERY IN MADISON COUNTY BEFORE REPAIRS WERE MADE, SHOWING WOODEN FLOOR AND UNPAINTED WALLS.

PHOTO No. 15. THE SAME, WITH CEMENT FLOORS AND SHEATHED AND PAINTED WALLS.

PHOTO No. 16—DUTCHESS COUNTY CREAMERY WITH LEAKING WOODEN DRAINS AND WET AND OFFENSIVE GROUND.

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

PHOTO No. 17 THE SAME PLACE, SHOWING TILE DRAIN WITH FRESH, DRY EARTH UNDER FLOOR.

PHOTO No. 18—DUTCHESS COUNTY CREAMERY, SHOWING WELL WITH FILTHY SURROUNDINGS.

PHOTO No. 18—DUTCHESS COUNTY CREAMERY, SHOWING WELL WITH FILTHY SURROUNDINGS.

PHOTO No. 19—SAME PLACE WITH GROUND CLEANED, WELL COVERED.

PHOTO No. 20—DUTCHESS COUNTY CREAMERY, SHOWING INTERIOR AFTER REPAIRS WERE MADE.

PHOTO No. 21—SHOWING NEW PRIVY AND CLEAN SURROUNDINGS.

The results of this work showed the need of taking more active measures in correcting dangerous conditions, and during the past year two men, and part of the time three men, have been detailed to milk work outside the City, with the result that nearly every creamery from which milk is shipped to New York City has been inspected, and many have been inspected two or three times.

The State authority has not been used, dependence being placed upon the power of the City to regulate the sale of milk within its limits.

The work has been almost entirely confined to the looking after creameries or shipping stations, it appearing to be wiser to get them into good shape before an attempt was made to make any general inspection of dairies where milk is produced.

During the year, something over a thousand inspections of creameries have been made on the line of all milk-carrying railroads, including the New York Central on all its divisions, The New York, Ontario & Western, the Delaware, Lackawanna & Western, the Erie, the Lehigh, the Central Railroad of New Jersey, the Delaware & Hudson, the Ulster and Delaware, the New York, Susquehanna & Western, the Lehigh and Hudson, and the New York, New Haven & Hartford.

A large number of creameries are situated at a distance from any railroad, requiring considerable driving to reach. There are thirty-four counties in New York which supply milk to the City, aside from those comprised within the City limits. Five counties in Pennsylvania, as many in New Jersey, two in Connecticut and one in Massachusetts send milk.

The actual number of creameries inspected has been five hundred and ninety. Of these, twenty-four were found to be closed, and twenty-four were found to be shipping milk exclusively to other points than New York City. This leaves five hundred and forty-two creameries inspected which were engaged in supplying the New York market. This is very nearly the actual number so shipping, as there are very few which have not been examined.

The need of these inspections is shown by the fact that very few were found to be in entirely satisfactory condition. Recommendations for changes were made in the case of four hundred and ninety-five creameries. This, of course, does not mean that all were in dangerously

unsanitary conditions, but that in all cases changes looking toward the guarding of the milk from contamination could be made, and these changes were recommended.

Very many conditions were discovered which called for immediate attention. Contaminated water was being used in many creameries for washing cans and utensils. Wells were situated close to or under creameries, into which the drainage from the building found its way. Water was being pumped from contaminated streams, in some cases the drainage from the creamery was discharged into a stream above the point from which the water was pumped out for the creamery use. Defective drainage was found in very many places—in some cases no real drainage system at all was installed, the water after being used for washing cans, bottles and other utensils as well as the floor washings being allowed to flow through open or broken floors onto the ground beneath the building, there to stay and become stagnant. This system was apparently so well liked in some cases that trap doors were installed in the floor to facilitate the discharge of the drainage. Cesspools were found directly under the floors which were very offensive. Frequently, where an attempt was made to carry the drainage away, wooden gutters were put in to convey it from the floor to the drain. These gutters became broken, allowing filth to flow onto the ground. This is shown in photo No. 1; photo No. 2 shows the leakage from a defective floor.

In one instance a water closet was found installed in the living apartments over the creamery. The discharge pipe was broken, allowing the sewage to leak through the ceiling onto the floor of the milk room, near the milk vats. Milk rooms were found in dark and filthy conditions, in some cases having the floor of the storerooms above the milk room constructed with open cracks, allowing dust and dirt to fall through into the milk room. Photos No. 3 and No. 4 show dark and dirty creameries.

Living rooms were found opening into the milk rooms, and in some instances it was found to be the custom to do the family washing in the rooms where milk was handled. Such a place is shown in photo No. 5.

In at least one case an offensive water closet opened directly into the milk room, and in others the bottling tables and utensils were found encrusted with filth.

The work of reinspection has been necessarily much slower than original inspections; but one hundred and seventy-six creameries have been reinspected, some of them several times. It is gratifying to state that in over fifty of these the recommendations were found to be entirely complied with at the time of the first reinspection. About one hundred and twenty-five altogether are now known to be in entirely satisfactory condition, and in very few instances have orders been disregarded, most reinspections showing work in progress or recommendations partially complied with. Doubtless, many of those which it has been impossible as yet to reinspect are also now in good condition. Several have been found in such a condition that it has been necessary to exclude the milk from the City.

Numerous photographs have been taken showing creameries as they were found. In several instances pictures have been taken showing improved conditions after recommendations being made and complied with.

Photo No. 6 shows a creamery in Orange County, in which the general arrangements were bad. The inspector in his report states:

> "For months it has been the practice of the manager to lift a trap door in the main room, and sweep onto the ground under it the entire filth, sweeping and waste of this place. The stench from the cesspool was noticeable before entering the creamery door, and inside it was vile. The floor is broken, allowing further saturation of the ground underneath."

In the photo the trap door is shown. Photo No. 7 shows the condition after the changes had been made.

Photo No. 8 shows the results of leaking floors at another Orange County creamery. In No. 9 the results of improvement are shown.

At a creamery in Cortlandt County, the following report describes the condition:

> "The building is old, dilapidated, and is an improper place in which to handle milk. The walls and ceilings are dirty, the whitewash is flaking off and falling upon the floor and into the milk. The upper floor is of wood, dust and dirt falls through

into the milk room below. The milk is stored in uncovered cans and other receptacles. There is a privy vault just outside the creamery which is full and offensive. Light and ventilation are very poor. Vats in which milk is stored are about four feet in diameter and eight feet deep. They are set in stonework, and the tops are near the floor level. They are left uncovered."

The company owning this place were given one week in which to make proper changes. At the end of this time the creamery was again visited, and the president of the company found in personal charge of the repairs. A car of lumber had arrived, and carpenters were at work. A new cooling room was being made, having cement cooling tanks. New tight floors were being laid. Sheathing and painting were being done, the privy had been removed one hundred and fifty feet from the building. The receiving vats were extended above the floor and covered, and the other changes were being made.

The report on another creamery is:

"The floors are of stone flagging, are broken and disconnected. There is a tile drain leading to the creek, which at present is not in use; the drainage flows onto the ground beneath the creamery."

The reinspection shows that the walls and ceilings have been sheathed and painted. The flag flooring has been repaired and put in good condition. A tile drain has been laid to a creek, a thousand feet distant.

The photos No. 10 and No. 11 show the interior of the place before and after the repairs had been made.

Another building is shown in photos No. 12 and No. 13, the first taken at the time of the first inspection, and the other after the repairs and changes had been made.

A creamery in Madison County is shown in photo No. 14, at the first inspection. The walls and ceilings were filthy, and the floor being of wood and broken, allowed the drainage to saturate the ground beneath. The water was from a well beneath the creamery, and was contaminated. The boiler was in the same room where milk was handled. Repairs were made in line with recommendations. A cement floor replaced the

PHOTO No. 22—CREAMERY AS FOUND ON FIRST INSPECTION

PHOTO No. 23— SAME AFTER CHANGES RECOMMENDED WERE MADE.

PHOTO No. 24—CREAMERY UNDER FORMER CONDITIONS.

PHOTO No. 25—THE SAME CREAMERY AS IT IS NOW.

PHOTO No. 26—INTERIOR OF COW STABLE.

PHOTO No. 27—WELL IN BARNYARD.

wooden one. A tile drain conveyed the drainage to the creek. The walls and ceilings were sheathed and painted, and the boiler room was separated by a partition from the milk room. Additional windows were installed for better light and ventilation. Photo No. 15 shows the creamery in its present condition.

At a Dutchess County creamery, filthy walls and ceilings were found, with a defective wooden floor drained by leaking wooden gutters. The ground beneath the creamery was saturated with filthy water. Photo No. 16 shows the wooden gutters and the filthy ground in the basement. Photo No. 17 shows the same place with a tile drain in place, with the ground cleaned, and whitewashing done. At the first inspection water for creamery uses was from a well situated just outside the walls of the building. It was uncovered, having refuse and a dead rat floating on the surface of the water. No privy was provided at the creamery, and the ground about the well was covered with refuse and filth. The photo No. 18 shows this well and surroundings, while the photo No. 19 shows the present condition after repairs. The well is about being filled up. The interior of the building after sheathing, whitewashing and the laying of new tight floors is shown in photo No. 20.

The exterior of a creamery after it had been painted, the premises about it cleared of refuse and a new privy had been built is shown in photo No. 21. Other before and after pictures are shown in photos No. 22 and No. 23, and also in No. 24 and No. 25.

These instances are a few out of many where great improvements have been made at the recommendation of the Department.

Another branch of the country work is the endeavor to trace the cause of contagious disease to milk infection. A large number of typhoid or other contagious disease cases occurring among the customers of any milkman, an endeavor is made to find the place from which the milk is shipped, and then to see if the milk could have been infected at the creamery or the farms. As an instance of one such investigation it may be stated that some ten or fifteen typhoid cases were found to be customers of a certain milk man, and that all his milk was received from one town. An inspection of the creamery at this town showed it to be very filthy, with poor drainage and slovenly methods of handling milk. Also that there were six or eight typhoid cases in the town, four of them

at farms sending milk to the creamery. The entire milk supply from this place was excluded from the City until the creamery had been put in proper sanitary condition, and when it was again allowed to be shipped, the milk from the farms where the fever cases were located was refused at the creamery. A careful inspection was made of all farms supplying milk, and at several of them contaminated water supplies were found. Safe supplies were obtained. No further typhoid cases appeared among the customers of this milkman, where so many had occurred before.

A more thorough and more frequent inspection of creameries is very much needed, and also a careful investigation of the dairies to show the conditions, at the primary source, of the milk supply, and the insistence that safe and sanitary arrangements for the production and care of milk shall be maintained is demanded.

The photographs which follow show conditions which are not at all unusual, but represent the general unsanitary surroundings found in nearly every locality where inspections have been made.

This work can be efficiently done only by a largely increased force of inspectors and the expenditure of considerable money, but the results obtained from one year's work by a small force indicate that greater and more extended effort would bring safer conditions, and very probably a reduced death rate.

On the twenty-fifth day of August, 1905, the following order was received:

"*To the Assistant Sanitary Superintendent, Borough of Manhattan:*

SIR—The charge, control, and supervision of all cow stables in the Borough of Brooklyn is hereby transferred from the Assistant Sanitary Superintendent of the Borough of Brooklyn to the Assistant Sanitary Superintendent of the Borough of Manhattan, to take effect Monday, August 28th, 1905, at 9 A. M., and I herewith forward you list of permits granted to keep cows in the Borough of Brooklyn, now in force, applications for permits to keep cows, and orders not complied with.

(Signed) CHAS. F. ROBERTS, M. D.,
Sanitary Superintendent.

PHOTO No. 28—WELL IN BARNYARD.

PHOTO No. 29—PILE OF MANURE IN YARD OF COW STABLE.

PHOTO No. 30—WELL IN A FILTHY BARNYARD.

BROOKLYN COW STABLES, SHOWING FILTHY MANURE BOXES AT THE REAR OF TWO STABLES; OCCUPIED BY TWENTY-EIGHT AND THIRTY-ONE COWS.
Stable vacated by the Board.

SHOWING VERY UNSANITARY CONDITION OF STABLE YARD, ALSO CISTERN FROM WHICH WATER WAS OBTAINED.
Fifteen cows removed from this stable by order of the Board of Health.

Upon receipt of this order a list of all the permits for the keeping of cows in the Borough of Brooklyn was obtained from the office of the Secretary, and a Sanitary Inspector was detailed to the investigation of the conditions existing in these stables. He carefully examined all of the cow stables in the Borough of Brooklyn, paying especial attention and going first to the largest ones, and to the ones in which the milk produced was offered for sale. His inspections reveal the fact that practically all of the milk which was produced for commercial purposes in the Borough of Brooklyn was obtained under the most unsanitary conditions imaginable. In very many instances it was found that the milk pails, cans, bottles and other utensils were being washed with impure water; in most cases the wells were located underneath milk house or stable floor. No attempt to sterilize the utensils was made. In some cases the washing was done with cold water only, without the use of soap or other detergent. The stables were usually without drainage. The floors were defective and broken. The ground beneath and surrounding the stables was saturated with filthy and offensive liquids. In some cases the manure had not been removed from the stable and premises for weeks if not months previously. In practically no cases were the cows allowed to leave the stable for exercise or to obtain fresh air, and in most instances the stables were very badly overcrowded. Many, if not all, of the stables lacked ventilation in some cases, even in warm weather, the windows werefound to be closed air-tight. Adjoining these stables were sometimes found so-called "milk houses." These houses were usually small and inadequate, poorly ventilated, and usually communicating directly with the stable, and in a number of instances the urine and filthy liquids from the stable drained through the partition directly over the milk house floor. In some instances the milk houses were used as storage and sleeping rooms only, the milk being handled in the stables. In mostly all of the cases examined the stables and the milk houses were pervaded with a sickening odor, and one of the most noticeable features was the myriads of flies dropping here and there, and into the unprotected milk. In all instances the flanks, bellies and udders of the cows were heavily encrusted with manure, they were never cleaned before milking, with the result that pieces of this offensive material dropped frequently into the milk. As a result of these

Chief Sanitary Inspector
with suitable endorsements.
instance declared
stables to be a public nuisance.
the premises forthwith. It
existing at these var-
milk were revoked
number of the proprietors
vacated the premises.
them made applications
plans and specifications for
stables. The right of ten of these plans
altering the stables
when the buildings have been con-
structed in accordance with the plans as approved by the Board of Health.
better quality than
this investigation.
the people in the
manner will result. At the time
existing in the Borough of
one hundred and
sale. Of these
and sixty-six
inspected by the Board.
five cows were
dairying milk discon-
been approved.
three hundred
apparent
upon the fact
Inspector was
require the
these instructions.
their stables. In
five

SHOWING GENERALLY UNSANITARY CONDITIONS, ESPECIALLY MILK CAN STANDING IN STABLE.
Eighteen cows ordered removed from this stable by the Board of Health.

A STABLE OF TWENTY-FOUR COWS, SHOWING FILTHY CONDITION OF FLOORS, WALLS AND CEILINGS.
Vacated by Board of Health.

A STABLE OF TWENTY COWS. DOOR IN THE REAR LEADS TO THE MILK HOUSE.
Especial attention is called to the large number of cobwebs on walls and ceilings.

A STABLE OF TWENTY COWS. DOOR IN THE REAR LEADS TO THE MILK HOUSE.
Especial attention is called to the large number of cobwebs on walls and ceilings.

A STABLE OF FOURTEEN COWS, SHOWING VERY FILTHY WALLS AND FLOORS, ESPECIALLY MANURE GUTTER.

EXTERIOR OF A STABLE, SHOWING A MASS OF SEMI-LIQUID MANURE OOZING BENEATH CLOSED DOOR.

INTERIOR OF ABOVE-MENTIONED STABLE, SHOWING DOOR IN PRECEDING PICTURE AND CROWDED CONDITION OF COWS.

This stable was twice ordered vacated by the Board of Health.

INTERIOR OF STABLE OF TWENTY COWS, SHOWING FILTHY CONDITIONS OF FLOORS AND WALLS AND CROWDED CONDITION OF CATTLE; ALSO MANURE ON COWS' FLANKS.
Twenty cows were ordered removed from this stable.

STABLE OF TWENTY COWS, SHOWING FILTHY WALLS AND FLOOR, AND ESPECIALLY LACK OF VALLEY DRAIN.
Note also defective flooring.

Sale of Milk in the Borough of Manhattan.

Two sanitary inspectors were detailed to have a general supervision over the stores in which milk was kept and offered for sale in the Borough of Manhattan. Upon their recommendations two thousand nine hundred and forty-five permits were granted for the sale of milk in the Borough of Manhattan. In addition to inspecting these stores where applications for permits were made, they inspected a large number of stores where permits existed, and where milk was offered for sale. They were required to see that the milk was handled under the best sanitary conditions obtainable, paying especial attention to its temperature and the cleanliness of the containers and their immediate surroundings. In addition to this work and the work of the district milk inspectors, during the warm months of the year, this Division was assisted from time to time by the inspectors of the summer corps, who made investigations in their various districts of the conditions under which the milk was sold. All cases of unsanitary conditions were immediately reported to the two above-mentioned inspectors. All cases of high temperature were referred at once to a number of milk inspectors especially detailed to this duty. As a result of this work many thousand quarts of milk of an improper temperature were seized and destroyed. A pamphlet containing the information given below indicates very closely the character of the work performed by the inspectors charged with the care of the sanitary surroundings of the milk supply. A copy of this pamphlet is handed to every applicant for a permit to sell liquid milk in the Borough of Manhattan.

Rules and Regulations for the Sale of Milk in New York City.

"1. Milk must not be kept for sale or stored in any room used for sleeping or domestic purposes or opening into same.

2. Milk must not be transferred from cans to bottles or other vessels on streets or on ferries or at depots, except when transferred to vessel of purchaser at time of delivery.

3. Milk must not be sold in bottles except under the following rules:

Bottles must be washed clean with a hot water solution of soap, or soda or some other alkali and then with hot water before filling with milk.

Bottles must not be filled except at the dairy or creamery, and in the city only in rooms so situated as to prevent the contamination of the milk by dust or other impurities from the streets or elsewhere.

Bottles must not be washed or filled with milk in any rooms used for domestic or sleeping purposes or opening into same.

4. The vessels in which milk is kept for sale must be protected by means of a suitable covered receptacle and so placed in the store as to prevent dust from the street or other impurities falling into it.

5. Store permits must be posted in stores so that they can be easily seen at all times.

6. Wagon permits must be carried on the wagon at all times when engaged in the sale, transportation or delivery of milk.

7. The number of the wagon and the number of the permit, the latter to be preceded by "Department of Health Permit," must be painted on both sides of the wagon in letters two (2) inches in length, and one-half (½) inch in width, and in some contrasting color to that of the wagon.

8. After the day's sales are over, the cans, bottles, measures and other utensils used in the sale of milk must be thoroughly cleaned with lukewarm water, to which a small amount of soda has been added in proportion of one tablespoon of washing soda to a gallon of water.

9. The overflow pipe from the icebox in which the milk is kept must not be connected directly with the drain pipe or sewer, but must discharge into an open, water-supplied, properly-trapped, sewer-connected sink (see section 34 of the Sanitary Code).

10. The icebox in which milk is kept must be cleaned by scrubbing out with a hot soda solution, as in rule No. 3, at least twice a week.

11. In selling milk, the contents of the can should be thoroughly mixed before measuring out the amount desired. This will prevent unintentional skimming, and the last quart of milk sold from the can will contain as much cream as the first quart sold.

12. It sometimes happens that in cold weather the milk may be delivered to the dealer more or less frozen. If such is the case, the ice from the sides of the can should be detached, and the contents gently heated until the ice is all melted. If there is much ice in the can it is

absolutely necessary to do this before the milk is sold, otherwise the liquid part dipped out and sold at first will contain more of the solid parts of the milk and cream, while the ice remaining, and consisting principally of water, will after a time melt and will result in the milk containing more water than pure milk should have, and may appear as if it had been adulterated with water.

13. Do not place ice in the milk if it is desired to cool it or keep it cold, as the ice will melt and the milk then appears to have been adulterated with water."

The work performed by the Inspectors of Foods assigned to the inspection of milk (other than The Bronx) during 1905 is shown in the following table:

Number of inspections	100,833	
Number of specimens examined	118,924	
Quarts of adulterated milk destroyed	39,613	
Number of samples taken for analysis	6,278	
Number of arrests	785	
Number discharged	7	
Amount of fines imposed	.....	$16,185 00
Number of arrests for selling milk without a permit	8	
Amount of fines imposed	.....	95 00
Number of arrests for selling adulterated cream	4	
Amount of fines imposed	.....	250 00
Total amount of fines collected for violation of law affecting milk		$16,530 00

Meat.

There are five Inspectors of Foods assigned to the duty of inspecting meat in this borough. One is on duty in the stock yards, where he examines all cattle as they enter the City. He is also charged with enforcing the provisions of section 124 of the Sanitary Code, which provides, amongst other things, that all milch cows entering The City of New York shall be accompanied by a certificate signed by a veterinarian, who is a graduate of a recognized veterinary college, to the effect that said cows are free from tuberculosis, as far as may be determined by physical examination and the tuberculin test. This examination must

be not more than sixty days prior to the time they are brought into the City. He also is charged with the proper disposition of animals suffering from a contagious disease, and of the carcasses of all animals which have died in transit, and are consequently unfit for food. There is also an Inspector detailed to each one of the slaughter-house districts, one who has charge of the wholesale markets on the lower west side, and one who makes shop to shop inspections of the retail markets throughout the borough. These men seize and have transported to the Offal Dock all meats which are unfit for human consumption, and during the season in turn to go to the various points at which bob veal may enter the City.

Results of Criminal Action in Bob Veal Cases.

Number of arrests	33
Number discharged	8
Number of cases pending	1
Amount of fines	$690 00

Fruits and Vegetables.

The work of this portion of the Division deals exclusively with every known kind of food product, including liquors, drugs, tobaccos and kindred articles, excepting liquid milk and fresh meat.

Inspectors—There are twelve Inspectors who by virtue of their wise judgment and ripe experience are detailed for this kind of work, and it is gratifying to know that no complaint or error of judgment has ever been recorded against them.

Duties—The Inspectors are always on duty, or, in other words, by a division of time the day of twenty-four hours is so arranged that the public safety is continuously and perpetually guarded. In order to properly facilitate and further perfect the system established, the work is divided and the Inspectors are assigned to the kind of duty best fitted to their experience; such as the inspections of fruits, vegetables, canned goods, canned milk, fish and merchandise such as heretofore enumerated. In addition to the vigilance exercised as to the physical condition of goods, the men are strictly enjoined to see that the highest standard of sanitary purity is maintained.

Results—This kind of intricate, delicate and scientific labor has been fraught with much good, as the Inspectors, by reason of their vast experience, are better able to understand the idiosyncrasies of certain classes of men who heretofore have given the Department much trouble and annoyance (I refer particularly to peddlers and push-cart men). A synopsis is here appended with figures showing the enormous amount of work accomplished:

Citizens' complaints investigated	860
Complaints by inspectors	900
Orders issued	1,500
Inspections (regular)	493,018
Samples obtained for chemical analysis	1,150
Condemnations—	
Food	12,000,584 lbs.
Fish	207,886 lbs.
Total	12,208,370 lbs.

The question may be asked why such an amount of poor material is allowed to find its way to these centres? Why are not these goods seized at the source of supply? And the answer is, that when these goods are purchased at the wholesale markets, they are in good condition, but, much of the fruit comes from a great distance and is preserved in refrigerator cars, and in carting it through the streets it is exposed to the hot weather, and is more or less bruised by jolting as it is carried through the streets, and begins to rapidly decay. If the stock on hand is not disposed of promptly it is kept until the following day, when it is often almost worthless. And this is the character of the goods most frequently condemned and confiscated.

These figures seem almost incredible, and in order that a comparison may be obtained, it may be stated that the total amount condemned equals 6100 tons, which is the capacity of a large ocean steamer or of a train of cars numbering three hundred and five, and equal in length to three miles.

It is a source of great pleasure and gratification to here record that the Board of Trade passed resolutions commending the Department of

Health for energetically, actively and impartially performing work in the wholesale produce district and along the river front, by adjusting differences between the trade and transportation companies whereby the sale of unmerchantable goods was strictly prohibited.

The following will give you an idea of details.

Fruits—Green.

Fruits are divided into two classes, deciduous and citrus. The first embraces every kind (other than berries) that grow at certain seasons and but once a year. The second refers to the orange, lemon and grape-fruit family which bear all year; the leaves from such trees do not perceptibly fall and are always green.

Where Grown—Fruits shipped to this market are grown as far south as the tenth degree north latitude, which begins at Cartagena, United States of Colombia, and west to the Pacific Coast, altogether the bulk not farther west than the eighty-fifth degree longitude, which runs through the center of Michigan.

The Mediterranean ports, such as Sicily, Italy and Spain, send large quantities, and Turkey and Persia contribute dried fruits, and in a few instances apples have been shipped from New Zealand, so, practically, fruit is shipped from nearly all parts of the world.

The Western industry has grown rapidly, and irrigation in Arizona has made that territory a vast shipping centre.

It may be interesting to note that the fruit industry, classified with the dairy interests (the handling of which by the same merchants make them synonymous) is the third largest industry in the world.

How Transported—Aside from the ordinary transportation facilities of nearby products, there are patent ventilators on ships coming from the tropics, and refrigerator cars from the West, reducing the loss to a minimum. The only instance where speed is lacking in the shipping of fruits is in the carrying of pines in bulk, which come from Key West and the Bahamas in schooners, the time of passage averaging twelve days.

Points of Arrival—The principal points of arrival are as follows: Clyde Line, Pier 45, North river; Pennsylvania Railroad, Pier 29, North river; Old Dominion, Pier 36, North river, Baltimore and Ohio

Railroad, Pier 22, North river; Erie Railroad, Pier 20, North river, New York Central Railroad, Pier 16, North river; American Line, Pier 14, North river; Delaware, Lackawanna and Western Railroad, Pier 13, North river, and Ward's Line, Piers 16 and 17, East river. Also all the steamship lines in a small way, and all express companies and river boats.

The bulk of Mediterranean fruit lands in Brooklyn, between Fulton street and Forty-second street.

How Distributed—The Savannah, Pennsylvania, and Old Dominion companies open their docks for business at 3 o'clock A. M. These places are our great markets, where seventy per cent. of the product is sold. All jobbers and retail grocers go there to make their daily purchases.

The heaviest days are Mondays, Wednesdays and Fridays. From these points, as a rule, the entire community is supplied. All of this is done at private sale.

The next important method for distribution is by public auction: the principal places being Pier 20, North river, and the Erie Railroad, known as the "California Dock." All far Western fruit arrives there and is lined up from midnight to 8 o'clock A. M., when samples are opened and exposed to the buyers (no retailing). At eight o'clock A. M. the fruit is sold upstairs in a large room especially constructed for the purpose. There are two auction companies, who alternate as to whom shall be first in the selling.

All Mediterranean fruits are sold by auction. The goods are lined up the same as on the Erie, at the Brooklyn and Jersey City wharves. The buyers examine the lines which they wish to purchase, mark their catalogues, then return to New York, where they are sold by Brown & Secomb and the Fruit Auction Company.

The only other fruit sold by auction is about eighty per cent. of the "pines," and twenty per cent. of the bananas.

Railroad and express fruit, other than the above described, goes direct to the commission merchants' stores, and from there is sold to the retailers and peddlers.

Vegetables.

With few exceptions vegetables arrive at the same places as fruits, but are shipped from nearby points. The Far West sends celery, cauliflowers, and Europe, potatoes. The season begins about March 15 with Floridian products, and as the season advances the supply gradually goes north until October, when the northern part of the State winds up with fresh shipments, potatoes, cabbages, turnips and carrots excepted, which are shipped all winter and until the beginning of the following season.

Germany sends over large quantities of cabbage, while Ireland, Scotland, Belgium and Germany send potatoes, but this is only done when our crops are short and prices high, for there is a duty of twenty-five cents per bushel on potatoes and onions.

Spain sends large quantities of onions and at times many come from Egypt.

Occasionally there is such an influx of vegetables from the South that the outgoing steamers of the Savannah and Old Dominion Lines carry much of the product to sea and dump it. (I have known of twelve thousand crates to be disposed of in this way in one day).

The chief places for distribution of vegetables in bulk (that is, loose in car lots) are at the New York Central yards, foot of West Thirty-third street; Erie, foot of West Twenty-seventh street, and Palmer's Dock, Williamsburg.

Canned Goods.

This is a subject that is very difficult to give accurate information upon in so far as receipts are concerned, for, after interviewing the brokers and wholesale grocers, their combined ideas and figures are but guesswork, and sifting the matter thoroughly I find that approximating them I would be from three to five million cases wrong either way, from the aggregate figures of fifteen million cases per year.

Nearly every known food product is canned. Originally they are sold by brokers to the wholesale grocers, who, in their turn, job to the retailers, and much is exported.

The heaviest canning is of meats, which is done at the Chicago Stock Yards. Then the fruit and vegetable industry, fish and condensed milk.

Disposing of Condemned Foods.

Arrangements have been made with the Savannah and Old Dominion Lines to carry large quantities of condemned goods to sea and there dispose of them beyond the Government's jurisdiction. With the Pennsylvania and Erie Railroads similar arrangements were made to clean the docks every day by loading the refuse in cars and dumping on the meadows between Jersey City and Newark. Bananas in large quantities are dumped at sea. That disposes of the major part. The balance is collected daily by men who have contracts with all the commission houses, and employ ten carts; this they take to Canal Street dump.

MISCELLANEOUS FRUITS.

This is simply to give a general idea from whence come the major portion of fruits:

Apples—New York State, Virginia, Michigan and Missouri.

Bananas—Islands of Jamaica, Cuba and Santa Domingo; all along Central American coasts to United States of Colombia.

Cantaloupe—Colorado (heavy), New Jersey and New York.

Cranberries—New Jersey and Massachusetts.

Dates—Persia.

Figs—Turkey.

Grapes—Imported: Spain. Domestic: New York State.

Cocoanuts—Central America and West Indian Islands.

Grape Fruits—Jamaica, Florida and California.

Lemons—Sicily, Italy and California.

Melons—Georgia, North and South Carolina, Virginia and New Jersey.

Oranges—California (heavy), Florida, Mexico, Jamaica, Cuba, Sicily and Spain.

Note—Foreign oranges few, duty one cent per pound.

Pines—Cuba (heavy), Jamaica, Florida Keys and Bahamas.

WORK IN CONJUNCTION WITH THE UNITED STATES GOVERNMENT.

Nearly all foreign fruit pays duty to the Government, and when it arrives in poor condition great care must be exercised in order that the two powers may work in harmony. The Government does not

object to condemnation proceedings, but wishes to be assured that the fruit will reach the dump. Heretofore the Government sold at auction lemons that were abandoned by the importers as not worth freight and duty; that was an evil to overcome, for nearly all of it was purchased by the East side dealers. Finally arrangements were made with the Federal authorities that all abandoned goods were to be sold the same as usual, but only sound deliveries made; this action resulted during the year 1904-05 in the condemnation of nearly twenty thousand boxes of lemons, thus eradicating one of the most difficult propositions the Department ever had to deal with in fruit. Furthermore, all food products abandoned by the importers are regularly inspected and condemned if necessary. Notification of such abandonments is sent to the Department instantly by the Government, thus showing unity of action for the public good. The duty on citrus fruit is one cent per pound; onions twenty-five cents per bushel; pines seven cents per cubic foot in packages and $4 per thousand in bulk.

Groceries—This includes the general merchandise of wholesale and retail stores, including canned goods.

These places are regularly inspected and samples of all kinds are taken to the laboratory for analysis. Any article not found to be up to the standard, i. e., containing deleterious ingredients, are carefully reinspected; if the same condition prevails, the goods are immediately condemned and disposed of in the usual way.

Condensed Milk—This industry is watched with the greatest care. Many times during the year samples of every brand known to be sold in this market are analyzed to ascertain if the usual high standard is maintained. The slightest showing below the standard meets with immediate confiscation of the goods, arrests and heavy fines of the sellers, making a second offense quite out of the question.

Coffees, Teas and Confectionery—These food products are treated in the same manner.

Eggs—Recently a new trade made its advent in this City, that of bringing cheap, old and musty eggs in tin canisters, then freezing and selling them by the pound to the poor people. The eggs were used for various cooking purposes, and by bakers.

In a very short time this enterprise became known to the Department. A crusade against it was immediately started, and, in three days, the principal offender was arrested and heavily fined; subsequent regular inspection proved that the traffic had ceased.

Almeria grapes	413,000	barrels.
Foreign lemons	1,450,000	boxes.
California lemons	100,500	boxes.
California oranges	1,337,300	boxes.
California deciduous fruits	1,400	cars.
Florida oranges	681,500	boxes.
Jamaica oranges	13,600	boxes.
Jamaica oranges	14,700	barrels.
Porto Rico oranges	57,000	boxes.
Porto Rico oranges	3,500	barrels.
Bananas	6,070,000	bunches.
Denia onions	218,000	crates.
Pines, foreign	368,150	crates.
Pines, foreign	500	barrels.
Pines, foreign (loose)	150,500	
Egyptian onions	51,825	bags.

Fish.

One inspector of fish is constantly on duty in the wholesale fish market. The others are assigned to the duty of inspecting the stores, stands and venders in other parts of the Borough.

At Fulton Fish Market proper, on the East River front, from Fulton to Beekman street, and the adjoining districts, bounded by Peck Slip, Fulton and Front streets, and Beekman street, half way from Front to Water streets, and all known under the general name of Fulton Fish Market, the sanitary conditions have been greatly improved.

In this section practically the whole supply of fresh fish, *i. e.*, unsalted and not preserved, from the City and its immense shipping trade, foreign and domestic, is received.

This trade reaches an average of nearly, if not quite, one hundred and fifty thousand pounds daily or about fifty-five million pounds annually, and is steadily increasing and taxing the limited space available to its utmost, and yet, as this trade increases, the percentage of loss is

as steadily decreasing, owing to the modern and approved methods for its care and preservation.

Of this amount about twenty-five per cent. is cod, haddock and halibut from the New England and Eastern Canadian Coast, and during the past year shipments of cod and halibut have been made from Alaska in refrigerator cars and by express trains.

These shipments were largely experimental and were fairly successful with halibut, but the cod shipments were a failure, not because they arrived in poor condition for food, but because of the very radical difference in color and texture of the flesh of the fish.

The skin of the Alaskan cod is much darker than the native, and the flesh is much whiter and fatter, resembling whale blubber and salt pork, and when cooked would scarcely be recognized as cod.

The Eastern product is handled now almost entirely through the Boston market, and is shipped by express trains and steamers to this market, only a very small percentage now being brought into this market by smacks.

Large consignments of halibut are now received in refrigerator cars and by express from California, the receipts of Western now equaling the Eastern in quantity.

Next in importance and forming about five per cent. of the total import is blue fish, this being now obtainable in this market about every month in the year. During the summer months they are more abundant, and are caught on the coast from Cape Cod to Cape Henlopen in nets and traps, but mostly by hand line from the small boats or smacks. These are packed in ice-houses in the smacks and brought to this market directly. Those taken by nets from the shore are packed in ice in boxes or barrels and are shipped by express trains or steamers.

In the winter they are shipped by express to this market, packed in ice and in refrigerator cars, from the South Atlantic and Gulf States.

Weak fish, porgies, flounders, sea bass and mackerel form about two per cent. of the total and are natives of the Atlantic coast.

All of these fish have, in the last few years, and in the past year to a greater extent than ever during their season of abundance, been stored in freezers or cold storage houses to fill the demand during the short season.

Herring, forming about two per cent. of the total, are taken in nets on the eastern coast of Canada, Iceland and Greenland in the fall and early winter, are frozen hard by exposure to atmosphere, packed closely in bulk in the holds of vessels, the hatches sealed and brought directly to the market.

Smelt, forming nearly five per cent. of the total, are taken in nets in the same location and the New England coast, are frozen by the atmosphere in winter season, packed in boxes of convenient size, and shipped by express trains or boat to market.

About five thousand tons of fresh water fish—pike, perch, pickerel, mullet, carp, bass, etc., are annually received in this market from the Great Lakes and the Central and Southern States, more than ninety per cent. are used in the East side districts and more than seventy-five per cent. by the venders of that district.

These fish in the summer season are packed in ice in boxes in refrigerator cars, and are sometimes shipped that way in the winter, but more often are frozen by the atmosphere and shipped in tight box cars.

From the North Pacific States, from Canada, the Central States and Alaska, by express and refrigerator cars, 2,500 tons of salmon were received, two-thirds of which were shipped to Europe directly from the cars to the steamers (one firm alone shipping three hundred tons during the year).

Great improvements have also been made during the year in the conditions of the fish stores in the East side district. Some of these were located in cellars which had nothing but earthen floors and no ventilation, except into the light or air shafts; some in hallways of tenements, in stables, in tenements and school yards, and even in the light and air shafts. These, wherever found, have been ordered out. Others were in basements, which, if properly fitted for the business and kept clean, would not be offensive or a nuisance, but, in the majority of cases, they were so crudely or inadequately fitted as to require almost daily inspection to prevent them from becoming a nuisance or a menace to health, and in many instances proper provisions for the care, handling and sale of fish was made only after numerous inspections and summons into court.

The wagon venders in other parts of the City, after several arrests and convictions in various parts of the City, have also been greatly reduced in numbers, and those still remaining in the business have, in the main, provided water-tight and covered wagons, and have entirely abandoned the cleaning of fish in the streets. When found doing business under any other conditions they have been arrested, and convictions obtained and a fine imposed in every instance.

The shops selling fish throughout the other parts of the City are, as a whole, in good condition from a sanitary point of view, and violations by exposure are rare.

The work performed by all the inspectors of this Division will be found in the following summary:

Number of primary inspections	924,952
Number of reinspections	47,274
Total	972,226
Number of children interviewed applying for certificates	29,836
Number of certificates granted	9,721
Number of duplicate certificates issued	350
Total number refused	4,051
Number of complaints of violation of Child Labor Law	126
Number of complaints returned for orders	1,460
Number of pounds of food condemned and destroyed	13,398,445
Number of permits issued	8,423
Number of arrests	3,143
Number of persons held on bail	1,139
Number discharged	362
Amount of fines imposed	$22,238 00

SANITARY BUREAU.

Report of Division of Contagious Diseases.

The following is a summary of the cases of contagious diseases reported in the Borough of Manhattan during the year 1905:

	1903.	1904	1905
Measles	7,283	17,838	9,495
Diphtheria and croup	10,569	11,016	7,553
Scarlet fever	6,705	7,747	4,233
Smallpox	24	41	12

There have been twelve cases of smallpox during the year, the lowest number since 1898, and of these, eight were infected outside of New York, four of the eight being ill with the disease when they arrived in the City. As in recent years, when a case was discovered it was promptly removed to the Department Hospital, all inmates of the house vaccinated the same day, and kept under surveilance for three weeks. All persons suspected of having been exposed, were vaccinated within twenty-four hours, and Vaccinators visited, within forty-eight hours, every building located in the two blocks surrounding the infected house, and offered vaccination to all inmates. As in previous years, letters have been sent to all the large business houses, urging the vaccination of employees, and offering the services of the Department for this purpose.

The number of cases of scarlet fever reported in 1905 reached only about 54 per cent. of the total reported in 1904. It is probable that this number will be still further reduced, when the scarlet fever hospital, now near completion, is available for the treatment of cases which develop in tenements, apartments connected with stores, boarding houses, and other places where isolation cannot be properly maintained.

The number of cases of measles reported was about 53 per cent. of the number reported in 1904. This decrease may be ascribed in part to the fact that every case is isolated and infected rooms are disinfected in the same manner as after scarlet fever or diphtheria.

During the past few years (since 1903) the attending physician's report of a contagious disease has been promptly acknowledged, and he can assume, if such acknowledgment is not received, that his report has not reached the Department.

During the past few months, a circular of information regarding measles has been given to parents or attendants at every premises where measles has been reported, and a copy of this circular, containing the regulations of the Department relating to the attending physician, have been mailed to the attending physician immediately after receiving his report. Similar printed "Circulars of Information" and "Regulations of the Department," will soon be ready for use in all cases of diphtheria and scarlet fever.

The following is a report of the Ophthalmological work performed by the Department during the year 1905:

Treatment of cases of trachoma by operative and non-operative measures has been continued at the Hospital for Contagious Eye Diseases, No. 341 Pleasant avenue, and the following are the statistics:

Number of cases of trachoma treated by operation	1,460
Number of cases of trachoma treated without operation	1,740
Total cases of trachoma treated	3,200
Number of cases of contagious eye diseases, other than trachoma, treated	639
Number of cases rejected as non-contagious	180
Total number of cases	4,019
Number of revisits	41,424

Non-operative treatment of contagious eye cases has been continued also in the portable house, at Gouverneur slip. In 1905, the single house proving inadequate for the increasing work another similar building was erected.

Cases requiring operation and coming to this Dispensary were referred, as in 1904, to the Hospital on Pleasant avenue.

The following are the statistics of the Dispensary at Gouverneur slip:

Number of cases of trachoma treated	7,483
Number of cases of contagious eye disease, other than trachoma, treated	2,583
Number of cases rejected as non-contagious	374
Total number of cases	10,440
Number of revisits	120,220

Some new departures were also made in the ophthalmological work during 1905. During the summer of 1904, it was noted that many of the children using the public baths, were affected with trachoma. It seemed probable that these children, through the promiscuous use of towels, which is common in public baths, might infect others, and in 1905, this matter received the attention of the Department. For the first two weeks after the baths had been opened, the eyes of all children applying for admission were examined, and certificates issued to those who were free from contagion. About twelve per cent. were thus excluded.

At the suggestion of Dr. W. B. Marple, the Department turned its attention to ophthalmia neonatorum. Circulars were sent to physicians and hospitals calling their attention to the law requiring them to report such cases. Similar circulars were sent to all registered midwives, and, in addition, midwives were informed of the great advantage of the application of Crede's solution to the eyes of all cases immediately after birth as a measure of prophylaxis. As soon as a case of ophthalmia neonatorum was reported by a midwife, an Inspector of the Department was sent to urge upon the parents the necessity for immediate treatment. It seems that this mode of procedure has resulted in decided benefit. The number of midwives who use Crede's solution is considerable and is always increasing. The number of cases of ophthalmia neonatorum found in eye hospitals is less, and I cannot but believe that the number of eyes lost from this disease is diminishing very materially.

During 1905, some 700 cases of trachoma selected at random from among those operated upon and apparently cured during the past two years were re-examined to determine how permanent might be the

relief. No return of the disease was found in 77 per cent. of these cases.

During the year, the 40 per cent. solution of Formaldehyde has been used in all fumigations, six ounces of formalin to every 1,000 cubic feet of air space to be disinfected.

During the year, 512 glandered horses have been destroyed, while 460 were destroyed in 1904. In every stable, where glanders has occurred, all horses are carefully examined and whenever necessary, tested with mallein. During the year, 26,330 horses were examined, and 107 tested with mallein. There were 3,785 inspections of stables made by the three Veterinarians of this Division.

STATEMENT OF THE WORK PERFORMED IN THE BOROUGH OF THE BRONX DURING THE YEAR 1905.

The Borough, as regards sanitary and contagious disease inspections, is divided into seven districts, each inspector being responsible for both branches of this work.

Sanitary Bureau—Division of Inspection.

The work in this Bureau has materially increased, as the following comparisons will show, due in a large measure to the increased population and the many public improvements being carried on, which necessitate the regulating and grading, also sewering of new streets which requires the issuance of orders for the cleaning, disinfecting and filling in of many cesspools and privy vaults and the installation of sewer connected fixtures in their stead:

	1904.	1905.
Total number inspections and reinspections	37,380	41,291
Total number citizens' complaints received	3,390	3,727
Total number orders issued	2,106	2,303
Number milk inspections	3,882	3,961
Number food inspections	16,570	8,661
Number mercantile inspections	63	56
Number quarts of adulterated milk destroyed	627	583
Number pounds food condemned and destroyed	179,856	104,422
Total number of arrests	104	45

The decrease in the number of food inspections can be attributed to the fact that during the year 1905, one of the men assigned to this work was in poor health and sick from time to time, and was continuously absent for four months prior to his death.

The work of issuing employment certificates is entrusted to one of the medical inspectors detailed to the office for that purpose. This branch of the Department work has been on the increase yearly and requires careful attention owing to the frequent changes in the Child Labor Law.

The force of inspectors being inadequate it has been impossible to detail a man to the inspection of mercantile establishments and this work has been performed by the district inspectors in connection with their other duties.

Division of Contagious Diseases.

	1904.	1905.
Total number of visits	24,678	18,230
Number visits to cases	19,420	11,497
Number rooms disinfected	7,801	5,610
Number pieces goods disinfected	4,796	5,501
Number persons removed to Hospitals	435	456
Number vaccinations	7,967	6,013
Number schools visited	44	50
Number visits to schools	4,119	5,253
Number children examined	544,592	644,248
Number glandered horses destroyed	48	68
Number cases of contagious diseases reported	6,395	5,057
Total number of inspections	29,670	21,173

During the past year none of the contagious diseases were prevalent to any great extent, with the exception of a rather unusual number of cases of chickenpox and measles with the past two months.

Special attention has been given all cases of contagious disease with reference to their isolation and exclusion from school of all children in families where such cases occurred.

...ment of the Division of Communicable Diseases during
... not affecting the number of houses visited for dis-
... the number of cases and the number of inspec-
... previously been made by the Medical Inspectors of

... the work of the Department stable attention may be
... that a year ago the operations in this direction were
... Borough of The Bronx but since the district has been
... the work, including ambulance calls and the removal
... of dead bodies, the number of horses has been found to
... the proper performance of this work. In addition to
... are called upon to collect samples of water and convey
... Twice weekly, samples of milk from Riverside
... be taken to the Laboratory and weekly trips have to
... the Manhattan office for stationery, supplies, etc.
... equipped with heavy harness should be supplied
... the Department stable equal to the demands made
... on him.

... WORK PERFORMED IN THE BOROUGH OF ... DURING THE YEAR 1905.

... OF INSPECTIONS.

... Complaints.

... has received this year shows a slight falling
... during the corresponding period of 1904.
... that complaints against tenement houses
... the Tenement House Department and not
... complaints of citizens were re-
... against Health for the corresponding

... complaints is the first duty of the
... further required to report all
... districts, and to forward original
... original complaints have been
... year.

Enforcement of Orders.

The procedure for the enforcement of orders has been radically changed during the year 1905. The preliminaries, such as counsel notice, and evidence of ownership are still followed as in the past. For those cases in which compliance is not secured by these means, the method of procedure by civil action has been adopted. The figures are not at hand to show whether this change is in the way of improvement or not. My opinion is, however, that at least under present conditions the result has been a large increase in the number of orders appearing on our records as not complied with.

Smoke Nuisance.

The statements contained in report for the year 1904 relative to the smoke nuisance have been borne out by experience in the past year. A very small number of complaints in regard to nuisance of this kind, are received at this office. In cases where complaints are received, it is almost impossible to obtain the necessary evidence of the violation of the present section 96 of the Sanitary Code, either through non-existence of the facts or through the reluctance of complainants to appear and give their testimony. For this reason an attempt was made during the past year to stop the use of soft coal which in most cases is synonymous with production of smoke, by proceeding under chapter 322 of the Laws of 1895, prohibiting the use of soft coal in this borough. This act has been passed upon on two occasions by the Appellate Division of the Supreme Court, and its constitutionality has been upheld. Evidence of the use of soft coal has been obtained in twenty-nine cases, which were submitted to the Corporation Counsel during the month of July, 1905. None of these cases have as yet been tried, so that the efficiency of this method remains as yet undertermined.

Renovation After Cases of Tuberculosis.

During the twelve months ending December 31, 1905, 825 orders for the renovation of apartments which have been occupied by consumptives, have been issued as against 617 such orders for the corresponding period of 1904. These orders are made upon complaints forwarded by the Medical Inspectors, and in a large majority of cases the

orders are promptly complied with. In cases of non-compliance, the matter is referred to the Corporation Counsel.

Meat Inspection.

The inspection of meat has been carried on as in former years, attention being chiefly given to animals on the hoof and to carcasses after slaughter. Shop inspections are also made throughout the borough. The appointment of an additional Meat Inspector has made it possible to largely increase the number of shop inspections, thereby materially increasing the efficiency of the inspection.

Food Inspection.

Two Inspectors are employed in the inspection of fruit, vegetables, and foods other than meat and milk, which are offered for sale in markets and stores. They also inspect the foreign fruit arriving at the Brooklyn piers. Difficulties encountered in disposing of these articles when condemned by Inspectors have been set forth in special reports. The efficiency of these inspections will be much enhanced by provision for adequate means for disposing of condemned fruits and foods.

Employment Certificates.

The work of issuing employment certificates has been carried on as described in previous reports. The amendatory legislation of the year 1905 has removed one of the causes of hardship and injustice worked by the previous law. Owing to the impossibility of securing a ruling as to the meaning of the amended law, however, very few employment certificates have been issued in the Borough of Brooklyn under it.

Inspection of Mercantile Establishments.

While no force of inspectors to be employed in the inspection of mercantile establishments has been provided, the attempt has been continued during the past year to enforce the provisions of law applicable to these establishments, by the Sanitary Inspectors. The number of violations found in this borough are few and relate only to minor matters.

Division of Contagious Diseases.

At the beginning of the year 1905 the Division of Contagious Diseases, in its entirety, was in a condition very satisfactory. During the twelve months just ended some important changes have taken place, particularly the withdrawal from the Contagious Disease Division of the following diseases: Tuberculosis, cerebro-spinal meningitis and typhoid fever. While the Division of Communicable Diseases has taken quite a few Inspectors from the Division of Contagious Diseases, it has also taken a very great amount of work.

The medical school inspection has been carried on exceptionally well, considering the fact that it has been necessary to cover two hundred and nineteen (219) schools with twenty Inspectors. As will be seen from the tabulated summary which is appended, there has been a decrease in the number of children examined. This is due to the fact that during the twelve months there have been eight less School Inspectors than during the previous year, and during the previous year there were considerably less than during the year 1903. It has been the endeavor to cover daily the schools in the thickly populated sections of the borough and have inspections made of schools in the outlying districts as frequently as possible. A report of the work performed by the nurses in this borough will be found included in the report of the supervising nurse.

Vaccinations have been performed by the Medical School Inspectors working on Saturday mornings, by one man attached to the central office, and by one man working part of his time as a vaccinator outside, the other part being devoted to office work.

The work done by the disinfectors has been eminently satisfactory. Fewer houses have been visited for disinfection during the past twelve months than during 1904, consequently there have been fewer rooms disinfected. The percentage of rooms disinfected as compared with houses visited is extremely low, being about 1.18 rooms per house, showing that isolation is properly insisted upon by the district Inspectors. The number of pieces of goods disinfected is not very much less than the corresponding time of 1904, but the number of pieces of goods destroyed is very considerably less.

orders are promptly complied with. In cases of non-compliance, the matter is referred to the Corporation Counsel.

Meat Inspection.

The inspection of meat has been carried on as in former years, attention being chiefly given to animals on the hoof and to carcasses after slaughter. Shop inspections are also made throughout the borough. The appointment of an additional Meat Inspector has made it possible to largely increase the number of shop inspections, thereby materially increasing the efficiency of the inspection.

Food Inspection.

Two Inspectors are employed in the inspection of fruit, vegetables, and foods other than meat and milk, which are offered for sale in markets and stores. They also inspect the foreign fruit arriving at the Brooklyn piers. Difficulties encountered in disposing of these articles when condemned by Inspectors have been set forth in special reports. The efficiency of these inspections will be much enhanced by provision for adequate means for disposing of condemned fruits and foods.

Employment Certificates.

The work of issuing employment certificates has been carried on as described in previous reports. The amendatory legislation of the year 1905 has removed one of the causes of hardship and injustice worked by the previous law. Owing to the impossibility of securing a ruling as to the meaning of the amended law, however, very few employment certificates have been issued in the Borough of Brooklyn under it.

Inspection of Mercantile Establishments.

While no force of inspectors to be employed in the inspection of mercantile establishments has been provided, the attempt has been continued during the past year to enforce the provisions of law applicable to these establishments, by the Sanitary Inspectors. The number of violations found in this borough are few and relate only to minor matters.

Division of Contagious Diseases.

At the beginning of the year 1905 the Division of Contagious Diseases, in its entirety, was in a condition very satisfactory. During the twelve months just ended some important changes have taken place, particularly the withdrawal from the Contagious Disease Division of the following diseases: Tuberculosis, cerebro-spinal meningitis and typhoid fever. While the Division of Communicable Diseases has taken quite a few Inspectors from the Division of Contagious Diseases, it has also taken a very great amount of work.

The medical school inspection has been carried on exceptionally well, considering the fact that it has been necessary to cover two hundred and nineteen (219) schools with twenty Inspectors. As will be seen from the tabulated summary which is appended, there has been a decrease in the number of children examined. This is due to the fact that during the twelve months there have been eight less School Inspectors than during the previous year, and during the previous year there were considerably less than during the year 1903. It has been the endeavor to cover daily the schools in the thickly populated sections of the borough and have inspections made of schools in the outlying districts as frequently as possible. A report of the work performed by the nurses in this borough will be found included in the report of the supervising nurse.

Vaccinations have been performed by the Medical School Inspectors working on Saturday mornings, by one man attached to the central office, and by one man working part of his time as a vaccinator outside, the other part being devoted to office work.

The work done by the disinfectors has been eminently satisfactory. Fewer houses have been visited for disinfection during the past twelve months than during 1904, consequently there have been fewer rooms disinfected. The percentage of rooms disinfected as compared with houses visited is extremely low, being about 1.18 rooms per house, showing that isolation is properly insisted upon by the district Inspectors. The number of pieces of goods disinfected is not very much less than the corresponding time of 1904, but the number of pieces of goods destroyed is very considerably less.

The number of inspections and reinspections made was as follows:

Sanitary, fruit and food inspections	26,684
Visits by medical inspectors	10,564
Houses visited for disinfection	1,709
Inspections by veterinarian	1,210
Inspections by sanitary officers	6,947
Visits by school nurses	2,305
Total	49,419

Citizens' complaints received	1,308
Inspectors' complaints received	654
Number of orders issued	1,345
Number of vessel permits issued	75
Number of miscellaneous permits issued	1,035
Number of employment certificates issued	992
Number of orders complied with	1,150
Number of orders still pending	195

School Inspection.

The system of school inspection has been carried on along the lines laid down last year. There were 1,038,828 children examined, as compared with 908,780 in 1904.

The number of children excluded was 276.

Contagious Diseases.

The following table shows the number of contagious diseases reported:

	1905.	1904.
Diphtheria and croup	577	517
Scarlet fever	283	323
Measles	924	848
Tuberculosis	375	444
Typhoid fever	93	133
Parotiditis	5	1
Cerebro-spinal meningitis	37	8
Chickenpox	162	147
Whooping cough	88	31
Smallpox	.....	1
Totals	2,544	2,453

The Borough has been specially fortunate in having very few cases of typhoid fever.

An epidemic of diphtheria was threatened in Union Course and Woodhaven, and five public schools and one parochial school had to be closed for twelve days. A house to house canvas was made of the entire section by the Inspectors under the direction of the Assistant Sanitary Superintendent, and cultures of all suspicious throats were taken. One man refused admission to the Inspector to examine a child that had been reported sick, and proceedings were commenced against him.

Vaccinations.

Vaccinations are performed in all schools, at this office and at the home when requested. The number of vaccinations performed was 1,230.

Glanders.

There were 72 horses suffering with glanders destroyed during the year 1905.

Beach Inspection.

Owing to a system inaugurated last year of inspection of beaches, there has been much less complaint to this office during the summer, concerning the sanitary conditions down at the Rockaways and at North Beach.

Cow Stables.

A regular system for the control of the milk supply has been inaugurated, and stables are inspected as frequently as the force at our command will permit. The owners of cow stables are having it impressed upon them that the Board of Health is thoroughly in earnest in having a supply of pure milk provided for the City, and that they must live up to the rulings of the Board in every respect. Inspections of all stables have been made and orders are now pending against most of them, and a number of the most offensive stables have been put out of business and others will follow.

Disinfection.

The disinfection of household goods after cases of contagious diseases has been carried out more effectively than heretofore, and the

orders are promptly complied with. In cases of non-compliance, the matter is referred to the Corporation Counsel.

Meat Inspection.

The inspection of meat has been carried on as in former years, attention being chiefly given to animals on the hoof and to carcasses after slaughter. Shop inspections are also made throughout the borough. The appointment of an additional Meat Inspector has made it possible to largely increase the number of shop inspections, thereby materially increasing the efficiency of the inspection.

Food Inspection.

Two Inspectors are employed in the inspection of fruit, vegetables, and foods other than meat and milk, which are offered for sale in markets and stores. They also inspect the foreign fruit arriving at the Brooklyn piers. Difficulties encountered in disposing of these articles when condemned by Inspectors have been set forth in special reports. The efficiency of these inspections will be much enhanced by provision for adequate means for disposing of condemned fruits and foods.

Employment Certificates.

The work of issuing employment certificates has been carried on as described in previous reports. The amendatory legislation of the year 1905 has removed one of the causes of hardship and injustice worked by the previous law. Owing to the impossibility of securing a ruling as to the meaning of the amended law, however, very few employment certificates have been issued in the Borough of Brooklyn under it.

Inspection of Mercantile Establishments.

While no force of inspectors to be employed in the inspection of mercantile establishments has been provided, the attempt has been continued during the past year to enforce the provisions of law applicable to these establishments, by the Sanitary Inspectors. The number of violations found in this borough are few and relate only to minor matters.

Division of Contagious Diseases.

At the beginning of the year 1905 the Division of Contagious Diseases, in its entirety, was in a condition very satisfactory. During the twelve months just ended some important changes have taken place, particularly the withdrawal from the Contagious Disease Division of the following diseases: Tuberculosis, cerebro-spinal meningitis and typhoid fever. While the Division of Communicable Diseases has taken quite a few Inspectors from the Division of Contagious Diseases, it has also taken a very great amount of work.

The medical school inspection has been carried on exceptionally well, considering the fact that it has been necessary to cover two hundred and nineteen (219) schools with twenty Inspectors. As will be seen from the tabulated summary which is appended, there has been a decrease in the number of children examined. This is due to the fact that during the twelve months there have been eight less School Inspectors than during the previous year, and during the previous year there were considerably less than during the year 1903. It has been the endeavor to cover daily the schools in the thickly populated sections of the borough and have inspections made of schools in the outlying districts as frequently as possible. A report of the work performed by the nurses in this borough will be found included in the report of the supervising nurse.

Vaccinations have been performed by the Medical School Inspectors working on Saturday mornings, by one man attached to the central office, and by one man working part of his time as a vaccinator outside, the other part being devoted to office work.

The work done by the disinfectors has been eminently satisfactory. Fewer houses have been visited for disinfection during the past twelve months than during 1904, consequently there have been fewer rooms disinfected. The percentage of rooms disinfected as compared with houses visited is extremely low, being about 1.18 rooms per house, showing that isolation is properly insisted upon by the district Inspectors. The number of pieces of goods disinfected is not very much less than the corresponding time of 1904, but the number of pieces of goods destroyed is very considerably less.

received an appropriation for the drainage of a great many of these sunken lots in a certain district with very good results, but this work should be done throughout the borough.

In the Mercantile Division, the number of employment certificates granted and the number of children applying for certificates remain about the same as in previous years.

The Division of Contagious Diseases shows that there were 2,421 visits made to cases of contagious diseases of various kinds, which is very much less than in previous years, there having been 6,306 visits made in 1904. This of course is due to the fact that there has been very little contagion of any description in the borough during the year.

There were 303 cases for special diagnosis.

The treatment of cases with antitoxin has been far in excess of previous years, and in fact, almost all cases treated with antitoxin and immunizations, it has been administered by Inspectors of this Department at the request of the attending physicians. That the Medical Inspectors in this borough not only do their work in attending to contagious diseases, but also the school work and the work of the Division of Communicable Diseases, and undoubtedly the lessening of contagious diseases in this borough has been due to the work of the Medical Inspectors in the public schools by the early detection and exclusion of children suffering from contagion, and wherever a case has been detected in a public school, the child has been immediately excluded, and the school disinfected by this Department. In this Division attention may be called to the number of visits by Inspectors of this Department to private houses, requested by the attending physicians either for immunizations or administering antitoxin, there being 1,999 visits.

There were 1,613 vaccinations in the public schools, and probably in the public schools to-day there is not a child that has not been vaccinated within the time required by the rules of the Department.

There have been 13,071 animals examined by the Veterinarian of this Department, and 24 post mortems.

The dairies under the supervision of the Veterinarian of this Department are fast complying with the requirements of the Board of Health, and where it is impossible to comply with the rules, the owners have made application to rescind their permit to sell milk and applied to

simply keep one or two cows for their own use. The larger dairies are readily constructing new barns and milk houses, and in a short time there will be no milk produced except under proper sanitary conditions.

There were 131 cases of contagious diseases removed in the ambulance of this Department to the hospital for contagious diseases. This ambulance service has been of great benefit to the public, and has prevented the conveying of persons afflicted with contagious diseases in hacks or other public vehicles.

The Department of Health has disinfected and fumigated every house in this borough where contagion developed, and in every such case there has been no return of a secondary case.

STATEMENT OF WORK PERFORMED IN THE DIVISION OF COMMUNICABLE DISEASES DURING THE YEAR 1905.

Report of Chief of Division.

The Division of Communicable Diseases was not in existence January 1, 1905. The sanitary supervision of tuberculosis and typhoid fever and the administration of diphtheria antitoxin in Manhattan, the conduction of the diagnosis laboratory and tuberculosis clinic, and the supervision of culture stations in Greater New York, came under the Division of Bacteriology, which in turn was under the Assistant Sanitary Superintendent of the Borough of Manhattan. This work was in a very satisfactory condition January 1, 1905, as shown by the annual report of 1904.

In Brooklyn, The Bronx, Queens and Richmond, the above functions were performed by the Divisions of Contagious Diseases in those boroughs. Owing to the lack of inspecting and clerical force, the records were incomplete and no thorough supervision of the various communicable diseases could be carried out. In tuberculosis the premises were renovated on report of the removal of cases, but no effort was made to enforce such renovation. In typhoid fever little was done beyond filing the reports of the cases. No records were kept of the results of antitoxin administration. Cases of cerebro-spinal meningitis,

erysipelas, pneumonia, etc., were not investigated in any way. Tuberculosis and typhoid fever inspections were considered by the inspectors as extra work, and done perfunctorily at odd times.

On January 4, 1905, the Division of Communicable Diseases was established in the Borough of Manhattan. Its scope was extended to the other boroughs on April 1, 1905.

The Division was organized as follows: (1) Chief of Division; (2) Acting Assistant Chief of Division and Chief of Manhattan Tuberculosis Clinic; (3) Acting Assistant Director of Diagnosis Laboratory; and (4) five Inspectors-in-Charge, one for each borough.

Each of the above officers has submitted a report of the work done during 1905 by that branch of the Division coming under his charge. These reports are attached. All statistics, figures, etc., of the work, for all boroughs, are gathered together into one table at the end of the report. Where possible the corresponding figures for 1904 are also given.

Separate detailed reports on typhoid fever, cerebro-spinal meningitis, pneumonia, the distribution of milk and eggs to consumptives, and the administration of diphtheria antitoxin, with tables, diagrams, and statistics, are also submitted. Also a brief statement of the work performed at Riverside Sanitarium.

During the year a report of the work of the Clinic for the Treatment of Communicable Respiratory Diseases, from its opening on March 1, 1904, to January 1, 1905, with photographic illustrations, tabulation of cases, etc., has been prepared, estimates as to cost of printing obtained, and a requisition for the same submitted.

Exhibit at Tuberculosis Exposition.

The American Tuberculosis Exposition was held under the joint auspices of the National Association for the Study and Prevention of Tuberculosis and the Committee on the Prevention of Tuberculosis of the Charity Organization Society of The City of New York, at the Museum of Natural History, from November 27 to December 9, 1905.

The following exhibit of the Department of Health was prepared and exhibited:

Frame, 4 feet by 4 feet, "Grand Prize" certificate, St. Louis Exposition; 4 frames, 4 feet by 5 feet, Ext. view and plans Riverside Sanatorium, 3 maps New York City, Borough of Manhattan, showing distribution of tuberculosis, 1894-1905, by lots in 4 books, 20 inches by 30 inches; 4 frames, 2½ feet by 3½ feet, anti-spitting signs; 2 charts, 6 feet by 6 feet, showing tuberculosis death rate; Manhattan and Bronx, 1881-1903, and in old City of New York, 1883-1903; 75 frames, 2 feet by 2½ feet, showing work in tuberculosis of the Division of Communicable Diseases as follows: (1) Exterior view building of the Department; (2-4) interior view of diagnosis laboratory; (5-9) work of disinfection, photos showing apparatus and methods; (10) Clinic building (exterior); (11-19) interior views, Clinic; (20-22) Riverside Hospital, exterior and interior views; (23) ferry to Riverside (photo); (24) site of proposed sanatorium at Otisville, N. Y. (photo); (25-26) charts showing death rates in five cities, New York, London, Paris, Berlin, Vienna, comparing deaths from tuberculosis with those from all causes; (27-30) maps showing prevalence of tuberculosis in four sections of New York City; (31-34) maps showing location of sub-stations of the Department in Greater New York; (35) cabinet used at sub-station (photo); (36-75) forms, circulars, cards, specimen correspondence, etc., illustrating work of the Department; sputum cup former, 2 sputum cups.

After the close of the National Exposition this exhibit was forwarded in turn to the exposition held in Boston and in Philadelphia.

It will be sent to all the expositions to be held in the various large cities throughout the country.

A hand-book of the Division of Communicable Diseases has also been prepared, giving full information as to what work is done and how. It will probably be ready for the printer by March 1, 1906. It is for the use of the employees of the Division, and also for distribution to the numerous physicians and others interested in the work of the Department of Health in connection with communicable diseases.

During 1906, besides extending the work of the Division along the lines already laid out, it is proposed to investigate the various "Con-

sumption Cures" in New York City, to investigate erysipelas, to carry out certain lines of clinical research, using the abundant material at hand, and to institute various statistical inquiries, based upon the records of the Division, *e. g.*, deaths from pulmonary tuberculosis, etc.

In conclusion I beg to state that the work of all branches of the Division is running smoothly and efficiently, and that the general spirit of the corps of employees is most satisfactory, they taking pride and interest in their work. Such spirit should be recognized, appreciated, and suitably encouraged by this Department.

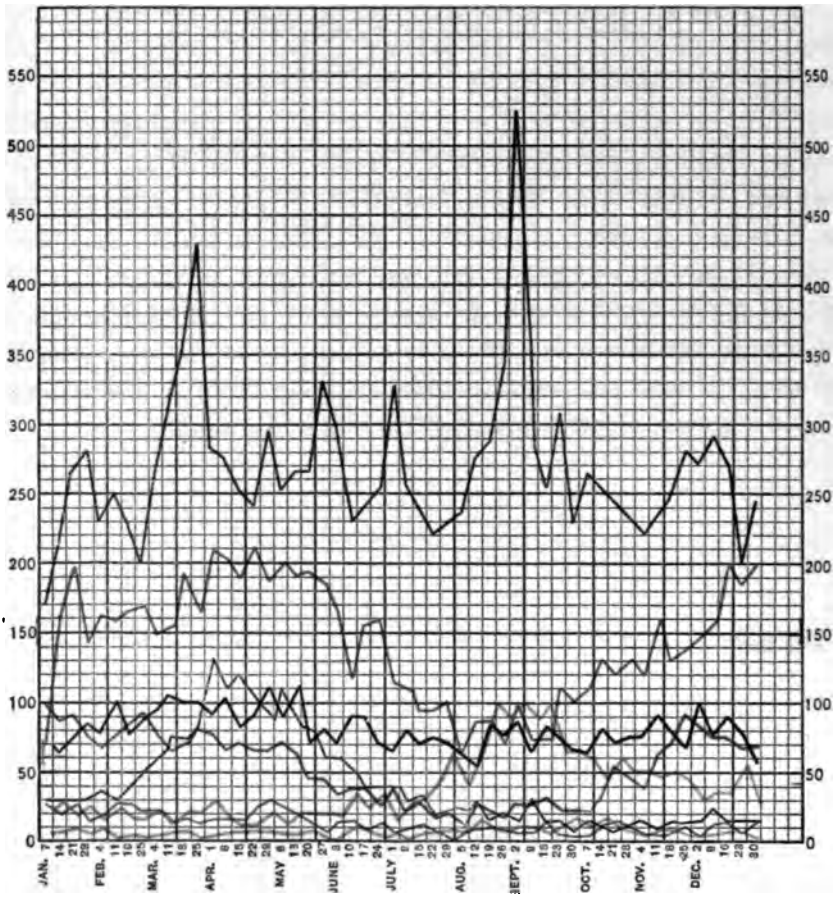
J. S. BILLINGS, JR., M. D.,
Chief of Division.

Borough of Manhattan.

Report of Inspector-in-Charge.

By January 1, 1905, the revision of the tuberculosis and other records was practically completed. On January 4, 1905, the Division of Bacteriology became the Division of Communicable Diseases, and on March 2, an Inspector in Charge was detailed to the sanitary supervision of the various communicable diseases. The work has been carried out along the same lines as heretofore. Various changes and improvements have been made which will be mentioned later in this report. The office and inspecting force has necessarily been increased. As will be seen in the statistical table, the general death rate of the Borough of Manhattan has been reduced from 218.20 per 10,000 for 1904 to 187.40 in 1905. It does not seem too much to claim that this Division has played some small part in bringing about this reduction.

The following chart shows the weekly course of cases and deaths of communicable diseases in Manhattan during 1905.



COMPARATIVE WEEKLY TABLE, 1905.

Communicable Diseases, Borough of Manhattan.

Pneumonia Deaths—Green.
Typhoid Fever—Yellow.
Diphtheria—Red.
Tuberculosis—Blue.
Lower Line—Deaths.
Upper Line—Cases.
Cerebro-spinal Meningitis for Greater New York—Black.

Tuberculosis.

There was an increase in the number of new cases reported, there being 1,500 more in 1905 than in 1904, and the number of deaths of cases not reported during life was 131 less than in 1904. This shows a steady improvement is taking place in the reporting of cases of tuberculosis by physicians. The official death rate of pulmonary tuberculosis in Manhattan was 20.01 per 10,000; in reality it should have been 24.23 as 966 Manhattan cases died in Bronx hospitals.

Work of Inspectors and Nurses—The number of inspections (31,003) was about the same as for 1904, there being a slight increase in the number of living cases visited and a slight decrease in the number of dead cases. Less than half as many renovations were ordered as in 1904, due to the fact that owners are performing renovations voluntarily; 705 such instances were recorded; 704 more fumigations were ordered in 1905 than in 1904. In only 17 cases was it found necessary to remove patients to Riverside Hospital against their will. Three times as many patients were sent to hospitals as in 1904.

The following table shows the localization according to wards of 1905:

Ward Number.	January.		February.		March.		April.		May.		June.	
	1904	1905	1904	1905	1904	1905	1904	1905	1904	1905	1904	1905
One	12	12	17	17	18	15	17	17	21	9	16	12
Two	..	2	1	1	2	16	2	20	1	15	1	16
Three	4	6	2	4	8	21	2	17	2	28	1	19
Four	24	20	19	19	32	52	29	26	18	11	9	23
Five	7	14	11	8	9	29	13	20	10	19	10	11
Six	19	8	18	10	19	44	32	30	27	14	16	19
Seven	51	42	47	72	68	132	67	134	59	164	69	138
Eight	41	28	25	30	21	54	20	52	32	47	28	37
Nine	44	23	41	40	44	54	42	42	38	44	48	26
Ten	53	62	42	74	80	97	74	48	39	53	40	38
Eleven	37	46	27	29	55	65	39	62	33	28	35	26
Twelve	191	187	181	183	202	192	219	235	204	184	186	163
Thirteen	21	16	18	23	39	34	38	15	36	10	15	17
Fourteen	12	5	11	6	29	25	41	18	26	10	14	11
Fifteen	17	8	16	12	20	35	27	29	25	29	16	23
Sixteen	30	50	24	36	34	44	36	39	39	25	24	31
Seventeen	56	59	66	45	89	76	120	60	88	65	94	74
Eighteen	52	50	52	42	59	40	57	81	58	62	51	58
Nineteen	126	137	113	107	142	144	161	152	157	148	129	131
Twenty	77	49	61	33	72	47	79	54	83	15	94	33
Twenty-one	64	21	50	26	52	28	45	66	53	69	45	67
Twenty-two	94	87	90	75	122	138	125	125	103	76	158	127
	1,032	932	932	892	1,216	1,382	1,285	1,342	1,152	1,125	1,099	1,100

the new cases of tuberculosis reported during each month of 1904 and

July.		August.		September.		October.		November.		December.		Total.	
1904	1905	1904	1905	1904	1905	1904	1905	1904	1905	1904	1905	1904	1905
15	7	20	10	13	25	16	12	12	7	22	15	199	158
20	3	2	12	2	29	2	17	..	19	5	18	38	168
22	..	2	13	2	22	6	5	7	17	6	13	64	165
25	10	23	36	22	32	15	16	6	17	26	30	248	292
33	10	8	21	15	38	9	19	4	23	10	17	139	229
28	18	21	18	18	38	24	15	23	22	28	20	273	256
159	65	50	125	49	175	62	130	49	97	66	106	796	1,380
33	7	11	41	28	47	16	41	7	40	34	27	296	451
31	53	52	37	39	60	73	24	49	32	52	62	553	497
34	62	42	48	65	56	61	19	63	28	62	34	655	619
30	47	25	36	44	35	34	14	18	22	51	40	428	450
195	201	197	228	150	239	190	149	156	203	233	147	2,304	2,311
11	21	21	29	18	33	16	15	8	13	24	14	265	240
17	17	17	10	11	29	9	12	6	8	13	13	206	164
27	17	18	38	5	42	11	14	6	10	31	17	219	274
28	45	23	32	25	51	49	12	30	13	55	32	397	410
66	97	62	89	68	113	90	84	64	90	91	88	954	940
37	51	50	49	50	44	54	15	36	31	56	35	612	558
140	140	110	132	87	159	145	94	121	95	168	112	1,599	1,551
18	86	67	24	57	43	64	32	52	31	76	37	800	484
97	60	42	66	59	81	58	51	34	44	51	46	650	625
160	131	134	107	99	177	115	108	76	119	112	107	1,388	1,377
1,226	1,148	997	1,201	926	1,568	1,119	898	827	981	1,272	1,030	13,083	13,599

The greatest number of cases occurred in the Twelfth Ward, due to the fact that it is the largest in the City. The Seventh and Ninth Wards cover the lower East side and are densely populated. The First Ward is a business district. The reduction in the Twentieth Ward for 1905 is due to the condemnation of a considerable area for the Pennsylvania Railroad station. The largest number of cases was reported during the week ending September 2d (538), and the least number during the week ending January 7th (175). This is rather surprising as it would be supposed that more cases would occur during the winter than during the summer.

Hospital Census—Twice a year a census is taken of the number of tuberculosis patients in the various hospitals.

	January, 1903.	May, 1903.	October, 1903.	May, 1904.	September, 1904.	March, 1905.	August, 1905.
Total number of cases	899	1,170	1,303	1,557	1,553	1,828	1,830
New cases.....	166	36	229	197	47	246	186
Male.....	....	....	....	....	....	....	1,200
Female	....	....	....	....	....	....	630
Duplicates.	733	1,040	1,074	1,360	1,506	1,582	1,644

The number of cases reported as in hospital has doubled since the taking of the first census, showing a steady increase in hospital accommodation for tuberculosis. Each month an inspector visits the various hospitals to replenish their supply of reporting postal cards. A record is kept of the number of each of the different postal cards supplied.

Table showing annual number of cases of tuberculosis treated, and number reported to the Department of Health for five large hospitals (number treated obtained from annual reports of said hospitals).

	1903.	1904.	1905.
St. Joseph's—			
Treated	1,565	1,707	1,699
Reported	1,090	1,240	1,406
St. Vincent's—			
Treated	122	111	37
Reported	65	58	21
Seton—			
Treated	865	1,198	524
Reported	607	870	1,011
Lincoln—			
Treated	177	284	211
Reported	170	222	295
Metropolitan—			
Treated	1,009	2,507	2,928
Reported	2,073	2,160	3,377

Tuberculosis Map—Large maps of Manhattan showing each house lot were obtained during 1905, and all cases for 1904 and 1905 have been plotted thereon. Solid circles of different colors according to the year are now used instead of dates, and the map can be photographed directly.

Private Cases, Reported by Physicians—During 1905 information was obtained as to the status of every private case in the records of the Department. This was done by means of letters to the attending physicians, asking the condition and whereabouts of the patient. The number of cases said to have died of pneumonia, and which had been previously reported as having had pulmonary tuberculosis, was much less than in 1904. Not more than a dozen such instances have been recorded, showing that falsification of death certificates in order that the family could recover life insurance, is much less prevalent.

Dispensaries—The number of dispensaries which have their own nurses to keep tuberculosis patients under observation at their homes, has been increased by one—the Harlem Dispensary. The following table shows the number of cases kept under observation:

	April.	August.
Bellevue	114	101
Presbyterian	121	66
Vanderbilt Clinic	74	30
Gouverneur	89	61
Harlem	.....	.....
	398	258

An attempt was made to induce the various sanatoriums in New York State to report all cases admitted and discharged, assuring them that no interference by the Department would take place. With the exception of Stony Wold the request was refused by all.

Recommendation—That all patients entering tuberculosis hospitals sign a contract, agreeing to remain in said hospital for at least three to six months. The advantages of this would be, that the hospital could do more for the patient, obtain better results and at the same time lessen the number of fumigations and renovations required at present. As it is now, patients are admitted one day and perhaps discharged the next, often not returning to their old address but going to some new one, exposing others to infection and putting some new landlord to extra trouble and expense.

Typhoid Fever.

The routine procedure in connection with typhoid fever elaborated in this borough during 1904 and 1905 and adopted in all other boroughs, is detailed elsewhere. There were 49 fewer cases and 4 fewer deaths in 1905 than in 1904, reducing the death rate from 1.3 per 10,000 to 1.2, and the case fatality from 15.5 to 14.6 per cent. The death rate in Manhattan was lower than in any other borough. The great reduction in the number of typhoid inspections was due to the fact that physicians are forwarding histories of their cases much more satisfactorily. The great-

est number of cases occurred during the week August 19th to 26th, 96 having been reported.

Cerebro-Spinal Meningitis.

As detailed elsewhere in this report the epidemic of cerebro-spinal meningitis which began in 1904 prevailed with increased severity in 1905, there being 848 more cases and 421 more deaths. The epidemic was of great severity, the case fatality being 75 per cent. The routine procedure adopted in connection with this disease was elaborated in the Borough of Manhattan, and was introduced in all the other boroughs. Special attention is being paid to isolation, quarantine and disinfection, and it is hoped that by these measures the number of cases will be sensibly reduced.

Erysipelas.

Of the 470 cases of erysipelas reported in Greater New York during 1905, 437 cases occurred in the Borough of Manhattan, with 179 deaths. It is proposed during 1906 to institute an investigation into erysipelas and to obtain full information regarding all cases reported. Also, as far as possible, to enforce the reporting of all cases by the physicians and hospitals.

Pneumonia and Other Communicable Diseases.

The prevalence of pneumonia during 1905 decreased almost 50 per cent. from that of the preceding year, the death rate falling from 20 per 10,000 to 12. All hospitals are required to report all cases of pneumonia coming under their observation, on a special postal furnished for that purpose.

During the year all hospital cases were investigated under the auspices of the Pneumonia Commission. For the results of this investigation see special report on pneumonia.

Administration of Diphtheria Antitoxin.

The results of the administration of diphtheria antitoxin by the Department of Health in the Borough of Manhattan have been most satisfactory. Diphtheria has been less prevalent than for many years, the official death rate being only 3.1 per 10,000, and the case fatality 8.7

per cent. These figures must be slightly altered, however, as 134 Manhattan cases died in the Borough of The Bronx; adding these to the Manhattan deaths the corrected death rate would be 3.7 per 10,000, and the corrected case fatality 10.8 per cent. While almost 1,000 fewer cases were injected by the Department inspectors the results have been better than ever before.

The case fatality of these inspectors' cases was only 5.3 per cent. Considering that most of the patients are in the poorest circumstances, the services of a physician being only called for as a last resort, the results are most striking. Only 102 cases required intubation as compared with 143 in 1904.

Of 6,000 persons who had been exposed to the disease and were immunized by the inspectors of the Department only 5 (.08 per cent.) contracted the disease. In 1904, 26 out of 7,985 (.3 per cent.) contracted the disease. Examination of the general table of statistics will show improved results in all classes of cases over 1904. A special report in reference to the results obtained with diphtheria antitoxin during the last ten years, is submitted later.

In the death of Dr. William M. Mahoney, Medical Inspector in this division, the Department lost the services of an efficient, faithful and honorable physician, and one whose loss is regretted by all who were fortunate enough to be associated with him.

SHIRLEY E. SPRAGUE, M. D.,
Inspector-in-Charge.

Borough of Brooklyn.

Report of Inspector-in-Charge.

Previous to April 1, 1905, the sanitary supervision of communicable diseases, injection of antitoxin, etc., was under the direction of the Division of Contagious Diseases. A borough branch of the Division of Communicable Diseases was established in Brooklyn, April 1, 1905, an Inspector-in-Charge being detailed to whom were assigned six inspectors, two nurses, three clerks and five laboratory assistants. As the work increased, the following were added to the staff of the Division: one inspector, two nurses, one clerk and one laboratory assistant. All preparations were made for opening a tuberculosis clinic, and a building at No. 75 Henry street was rented and equipped for that purpose. All necessary furniture was purchased and a staff of attending physicians organized. Residents of the neighborhood obtained an injunction against the opening of the clinic, which injunction is still in force. The offices of the Division were moved to No. 75 Henry street, where the same system of registration, recording and supervision of communicable diseases as is in vogue in Manhattan was introduced with very satisfactory results.

Tuberculosis.

While the number of new cases reported during 1905 was only slightly larger than during 1904, yet the number of duplicate cases reported was markedly increased. All "physicians' cases" reported between 1900 and 1905 had remained untouched in the index until the last quarter of 1905, when information regarding their present condition was either obtained from the attending physician or by inspection, this becoming possible by the addition of two nurses to the force. All other cases in the index that had not been heard from during the year were looked up by the nurses, so that by the end of the year the index of living cases comprised some 5,000 supposed to be alive that had all been heard from during the year. All cases once reported as tuberculosis, and certified as having died from pneumonia, were investigated; the last attending physician apprised of the facts, and given an opportunity of changing his diagnosis, which I need not add he seldom availed himself of. When the premises occupied by a tuberculosis patient were

considered to be in all probability infected, the landlords were sent postals on which to notify the Division if the patient removed, but this has not proved very effective, as very few are ever returned, even though the patient moved within a short period. Thirteen forcible removals of cases of tuberculosis were recommended during the year, but the accomplishment of some of these was delayed for from two to five weeks, owing to Riverside's crowded condition, thus defeating the object of the move, and rendering efforts for other needed removals by this means useless. It is recommended that a small reception ward be provided on the grounds of the Kingston Avenue Hospital for such cases of tuberculosis from this borough. It is impossible to procure institution treatment for the large majority of cases, as vacancies in Brooklyn Institutions are scant, and Blackwell's Island is a bugbear to most patients. If a vacancy occurs, a new difficulty presents itself. In Brooklyn there has never been an efficient, direct method of removing a consumptive to a hospital; ambulance service is difficult to secure; the two ambulances of the Department of Charities are said to be overworked, having an excessive territory to cover; those of the various hospitals not receiving consumptives make a practice of refusing all such cases on call, no matter what the patient's condition may be; and the Department's ambulances, usually otherwise engaged, can only be secured by a written request to the Assistant Sanitary Superintendent. It is recommended that an ambulance be assigned to the Division; the promptness with which its service could be procured would be a great boom to the consumptive, and would greatly advance the work of the Division. Although the attempt to open a clinic for the treatment of tuberculosis at No. 75 Henry street has so far been frustrated by a court injunction, the Brooklyn City Dispensary at No. 11 Tillary street, has undertaken to care for all cases and many of the "at home" patients have been referred there. Arrangements are being made for the opening of a similar clinic in the Williamsburg Hospital. The Brooklyn Bureau of Charities having offered to distribute milk and eggs to suitable cases throughout the borough, arrangements have been made to supply four branches of that organization with milk and eggs. Every case will be visited by a district nurse who will issue the order. The same system of supervision of these cases will be adopted as in vogue in Manhattan.

Typhoid Fever.

(See special report on typhoid fever for the Greater City of New York.)

Cerebro-Spinal Meningitis.

The number of deaths from cerebro-spinal meningitis in 1905 was almost double that in 1904; the death rate rising from 2.09 to 3.33 per 10,000. The same procedure was adopted as in Manhattan. Whenever a case required removal to a hospital none was available except the Kings County Hospital, and the Charities Department constantly protested against taking into a general hospital cases of a disease against which the Department enforced such rigid quarantine. They soon absolutely refused to convey a case in their ambulance, and this Department's ambulances had then to be used for all cases. During the last few days of 1905, the Department of Public Charities absolutely refused to receive another case of cerebro-spinal meningitis into the Kings County Hospital, so that at present there is no place to which such cases can be removed, as the Kingston Avenue Hospital refuses them on the basis of no accommodation. The same ambulance used for removing cases of pulmonary tuberculosis could be used for removing all cases of cerebro-spinal meningitis. It is probable that the Department of Charities can be induced to admit these cases to the Kings County Hospital.

Malaria.

Three deaths stated as having been due to malaria were investigated and, with one exception, that of a native of the tropics newly arrived, were found to have nothing better than "a diagnosis by exclusion" to justify such classification.

Administration of Diphtheria Antitoxin.

The Borough of Brooklyn is divided into six districts, each in charge of an inspector who administers antitoxin in cases of diphtheria occurring within his district. They are constantly on duty, making all injections, immunizations and intubations (in the last, when the district inspector cannot be reached, the Kingston Avenue Hospital ambulance surgeon intubates and, if necessary, removes the case). They have paid special attention to securing a maximum of needed immunizations.

Histories of all antitoxin cases were kept and have been tabulated. Of a total of 1,142 physicians in this borough of whom inquiries have been made, all except 27 always use antitoxin. The number of cases and deaths in diphtheria occurring in Brooklyn during 1905 were about 20 per cent. less than in 1904; the general diphtheria death rate being reduced one-third and the case fatality from 14 per cent. to 12 per cent. The case fatality of the cases injected by the inspectors of the Department, excluding moribund cases, was only 4 per cent., a very satisfactory result.

Culture Stations.

Collection of specimens for bacteriological diagnosis has been extended during the year to two new stations, making a total of 42 in the borough that are visited daily (6 only on Sundays) by a collector, but some districts are yet uncovered that, if possessed of culture stations, might make a better showing in the use of the Department's facilities for diagnosis and the administration of antitoxin. The Inspector-in-Charge has visited all culture stations every fortnight, and this has immeasurably improved their service and the condition in which their supplies are kept. He has also visited periodically the various hospitals in reference to the new measures inaugurated, and to keep their reporting machinery in motion. Thirty-three culture station cabinets, similar in all respects to those already in use in Manhattan, have been ordered for the culture stations in Brooklyn. The remaining stations will be supplied with large tin supply boxes. When these cabinets with a full stock of supplies have been installed, the number of specimens forwarded to the diagnosis laboratory should be sensibly increased. The ambulance previously requested for the removal of tuberculosis and cerebro-spinal meningitis cases could be regularly employed in distributing supplies to culture stations. All clerical work connected with the examination of Brooklyn diphtheria cultures was transferred to this borough in December, the slips with the result of the examination indicated thereon being sent from Manhattan by messenger; the results are telephoned at once to the attending physician, subsequent to which the formal report is made out and mailed.

HORACE GREELEY, M. D.,
Inspector-in-Charge.

Borough of The Bronx.

Report of Inspector-in-Charge.

Previous to May 5th, supervision of the various communicable diseases in the borough was exercised by the Division of Contagious Diseases, the diagnosticians acting as antitoxin inspectors and inspecting cases of tuberculosis and typhoid fever. Cases of cerebro-spinal meningitis were inspected by the district medical inspectors. The other classified communicable diseases, pneumonia, erysipelas, malaria and septicaemia, were not inspected except upon request, and were not listed and recorded.

On May 15th, 1905, a borough branch of the Division of Communicable Diseases was inaugurated and placed in charge of an inspector detailed for that purpose and designated as Inspector-in-Charge. No regular inspectors were appointed for the Division, the diagnosticians continuing to perform the work. A nurse was detailed to take over the supervision of all " at home " cases of tuberculosis, and to make monthly inspections of the culture sub-stations in the borough. One inspector was detailed from the Division of Contagious Diseases, for special work on typhoid fever and cerebro-spinal meningitis. Shortly after this, all the specimen slips (diphtheria, typhoid, tuberculosis and malaria) of suspected cases in the borough, which had previously been filed in the Manhattan office, were transferred to The Bronx office to be kept on file.

The system for recording and filing cases of communicable diseases as practiced in Manhattan Borough was inaugurated.

An incubator was installed in the borough office for the reception of culture tubes, and it was thus made possible for any culture taken late at night to be examined and reported the next morning.

Maps were placed in the borough office on which all reported cases of typhoid fever, cerebro-spinal meningitis and tuberculosis were plotted.

The system of daily and weekly reports and records in vogue in Manhattan Borough was inaugurated. Thus, within a short time the Division of Communicable Diseases in the borough was running smoothly, with a system interchangeable with that of all the other boroughs in the greater city.

A short time later the work of making the reports to the physicians who sent in cultures, specimens of sputum, blood, and urine was transferred to this borough and an extra clerk detailed for that purpose.

On Dec. 15, 1905, the borough office of the Department of Health removed from 1237 Franklin avenue to 3731 Third avenue, corner of St. Paul's place. The Division of Communicable Diseases was thus enabled to occupy much larger and better quarters than heretofore, and a portion of the building was also assigned to this Division for use as a tuberculosis clinic. This branch of the service is much needed and should be inaugurated as soon as possible.

On Dec. 26, 1905, three inspectors were transferred to this division to whom was assigned all work in connection with administration of diphtheria antitoxin, supervision of tuberculosis, etc.

Tuberculosis.

The number of new cases reported was about the same as in 1904. That the number of deaths is so greatly in excess of the number of cases (by 486) and the death rate so high (52.78 per 10,000 as compared with 21.21 for Greater New York) is explained by the fact that four large tuberculosis hospitals (St. Joseph's, Seton, Riverside and Lincoln) are situated in The Bronx. The great majority of the patients in these hospitals are residents of Manhattan; yet all the deaths are charged to the borough of The Bronx. 916 such deaths occurred in 1905; deducting these, only 525 are chargeable to The Bronx, and the death rate is reduced to 19.23 per 10,000. At present there are no diet kitchens in the borough through which the Department could supply milk and eggs to suitable cases of tuberculosis and the want of such an institution is greatly felt.

Typhoid Fever.

(See general report on typhoid fever in Greater New York.)

Cerebro-spinal Meningitis.

Late in 1904 and early in 1905 the Borough of The Bronx felt the influence of a general epidemic of cerebro-spinal meningitis which existed throughout the greater city. This epidemic was on the wane at the time the Division of Communicable Diseases was established in the borough.

Administration of Diphtheria Antitoxin.

As was the case elsewhere throughout the city, diphtheria was less prevalent in 1905 than in 1904, there being 180 fewer cases. The number of deaths and death rate were, however, considerably higher, due to the fact that Willard Parker Hospital being closed, many Manhattan cases went to Riverside Hospital and died there. 134 such deaths occurred. Deducting these, the death rate is reduced to 2.41 per 10,000 and the case fatality to 6.6 per cent., by far the lowest of all the boroughs.

No records could be obtained of the results of antitoxin administration by the Department prior to January 1, 1905.

The case fatality of the cases injected by the Department was too high—5.6 per cent. as compared with 3.5 per cent. in Manhattan and 4 per cent. in Brooklyn. This should be remedied now that a regular corps of antitoxin inspectors is on duty.

The same procedure is followed in regard to the administration of antitoxin and intubation as in Manhattan, except that when intubation is requested and the inspector is not in his office or cannot be reached immediately, the call is also sent to Riverside Hospital. The inspector also visits the case as soon as possible, and if he is first on the scene he proceeds to intubate. In any case he does any necessary injecting, immunizing, ordering disinfection, fumigation, etc.

The service in this branch of the work of the Division has been as prompt as possible, considering the extent of the territory covered. The average duration of time between the receiving of the request by the Department and the injection of the patient by the inspector is between one and two hours.

The inspectors each cover the entire borough two days a week and every third Sunday.

Pneumonia, Etc.

All cases of pneumonia, erysipelas, malaria and septicaemia are now recorded, filed and given a case number for future reference. The regulations of the Sanitary Code regarding the reporting of these cases by physicians are observed. All deaths from pneumonia are compared with the index of tuberculosis cases, for a possible

previous report of the case as tuberculosis. All deaths from malaria are investigated by an inspector and the physician is visited with a view of obtaining his statement as to whether there might not have been a possibility of typhoid infection.

While much has been accomplished during the eight months during which the Division of Communicable Diseases has been in existence in the borough, much is yet to be desired. The standard has been raised but it can be still further elevated.

Recommendations.

The Clinic for the treatment of cases of tuberculosis should be speedily opened. A diet kitchen should be established. The establishment of a branch laboratory in the borough for the examination of cultures and specimens of blood, sputum, urine, etc., would be of distinct advantage.

The borough office of the Department of Health in The Bronx has been most active in aiding the work of the Division of Communicable Diseases and has materially contributed to its efficiency.

CHAS. A. CLINTON, M. D.,
Inspector-in-Charge.

Borough of Queens.

Report of Inspector-in-Charge.

I.—*Inspectors*—During the first part of the year the work was performed by inspectors of the Division of Contagious Diseases. On May 15th an inspector was assigned to do the work of this Division exclusively. But as the work was too much for one inspector, he was assisted in the work of antitoxin administration and intubation by a diagnostician who covered the Third, Fourth and Fifth Wards. Antitoxin work in the First and Second Wards, and tuberculosis and typhoid inspections in the entire borough were performed by the inspector of this Division. On October 1 an Inspector-in-Charge was appointed to direct the work, to keep proper records and to make the borough system uniform with that of the other boroughs. Beginning December 15 a nurse was assigned to work in Queens three days a week.

II.—*Records*—During the first part of the year the records were kept in Jamaica and were in a deplorable condition. System seemed to be entirely lacking. To judge from some of the palpable errors discovered, even ordinary care was not always exercised in the filing and disposition of history cards, letters, complaints, etc. On July 15 the records, files, etc., were transferred to the Manhattan office, where they were rectified by the Manhattan Inspector-in-Charge. Since then the work has been prosecuted in conformity with the system in vogue in Manhattan. During the year the following improvements were inaugurated: Typhoid histories were changed from folded papers inserted in envelopes to cards of an equal size with the cerebro-spinal meningitis cards. Tabulation of cerebro-spinal meningitis cases and typhoid histories is now done weekly, thereby keeping the statistics of these diseases up to date. The Inspector-in-Charge of Queens does this work for all the boroughs. More accurate records were kept of failures to report cases on the part of physicians—letters being more systematically sent—with the result that physicians report cases much better than formerly.

III.—*Diphtheria*—Up to May, 1905, antitoxin injections and intubations were performed by medical inspectors of the Division of Contagi-

ous Diseases. On May 15 the borough was divided into two districts, viz.: I.—First and Second Wards; and II.—Third, Fourth and Fifth Wards: the first being covered by an inspector and the second by a diagnostician. Since December 1 all physicians reporting diphtheria cases have been communicated with by our inspector to ascertain if antitoxin was administered; and if not, the services of the Health Department were offered. In this way the number of injections and immunizations in diphtheria cases has been materially increased.

IV.—*Tuberculosis*—Up to May 15 tuberculosis cases were only visited after death, to order fumigation and disinfection and renovation. Since May 15 "at home" cases as well as "dead" cases have been visited but have not been kept under observation, because of the lack of a nurse for the borough and of the size of the territory (127 square miles) to be covered by the one inspector. Since December 15 "at home" cases have been visited by the Department nurse working three days a week in the borough.

V.—*Typhoid Fever*—A change in the form of history blank was instituted.

VI.—Cerebro-spinal meningitis.
VII.—Pneumonia.
VIII.—Erysipelas.
IX.—Abortion.
X.—Sepsis.

No important changes in the manner of keeping records of these diseases.

XI.—*Maps*—During December two borough maps were procured, and colored tacks were placed thereon to designate the locality of the occurrence of the various communicable diseases; blue indicating tuberculosis, yellow typhoid and red cerebro-spinal meningitis.

XII.—*Hospitals*—During the year the five hospitals of the borough were visited by the Inspector-in-Charge, and the superintendents instructed in the proper use of the report postals. As a result the hospitals are now reporting their cases more satisfactorily.

XIII.—*Miscellaneous Improvements*—All improvements inaugurated by the Manhattan office (*quid vide*) were immediately adopted.

Recommendations.

I.—That a tuberculosis clinic be established in Long Island City in a building to be rented for that purpose. The office and records of the Division could be in the same building instead of in Manhattan, as at present.

II.—That an additional inspector be assigned to duty in Queens, to assist the present inspector in the administration of antitoxin and the supervision of communicable diseases, thus obviating the necessity of calling on the Assistant Sanitary Superintendent of Queens for the services of the diagnostician.

VICTOR NEESEN, M. D.,
Inspector-in-Charge.

Borough of Richmond.

Report of Inspector-in-Charge.

An Inspector-in-Charge was assigned to duty on May 9, 1905, since which date all work has been done as far as possible in the same way as in Manhattan. Previously, all office work was done by the clerks who have charge of the work of the Division of Contagious Diseases, and in conjunction with that work. The inspections and antitoxin injections were made by the district inspectors under the supervision of the Assistant Sanitary Superintendent.

Since May 9th, the work has been performed by the following staff:

One Inspector-in-Charge, one disinfector (who acts as clerk also), one nurse and one collector, who is a laboratory assistant.

All institutions are regularly inspected by the Inspector-in-Charge at intervals. All intubations are made by the Inspector-in-Charge. Antitoxin injections and immunizations have been made by the Inspector-in-Charge and, by courtesy of the Assistant Sanitary Superintendent, by the district inspectors. Tuberculosis inspections have been made by the Inspector-in-Charge and by the nurse, and in a few cases by the district inspectors, and fumigations have been ordered by the same inspectors.

All other inspections, viz.: Typhoid fever, cerebro-spinal meningitis, malaria, pneumonia and puerperal sepsis, have been made by the Inspector-in-Charge.

Since December 9th, reports of the examinations of cultures of suspected diphtheria from this borough have been made out in this office and the physicians have received them from twelve to twenty-four hours earlier than formerly. The incubator was removed to this office in August last, and connected with a tube through the door frame so that physicians can drop culture tubes into the incubator at any time, day or night

All records of laboratory examinations for diphtheria, tuberculosis, widal reaction, etc., are now filed at this office.

The number of cases of tuberculosis reported during the year was one third greater than during 1904.

The number of cases of typhoid fever reported during the year was 20 less than during 1904. The death rate decreased from 2.0 per 10,000 in 1904, to 1.5 for 1905. The small number of inspections was due to the fact that the attending physicians responded very readily to our requests for information.

Although only 18 cases of cerebro-spinal meningitis occurred during the year, some 50 inspections were made of them and of suspected cases proving not to be cerebro-spinal meningitis.

A large number of the cases of pneumonia were inspected.

In accordance with the decreased prevalence of diphtheria in Greater New York, there was during 1905 only about one-half the number of cases and deaths from diphtheria that occurred during the year 1904, the death rate being reduced 50 per cent. No records of the results of injection of diphtheria antitoxin for 1904 could be obtained.

HORACE W. PATTERSON, M. D.,
Inspector-in-Charge.

Clinic for the Treatment of Communicable Pulmonary Diseases.

Report of Chief of Clinic.

The Clinic is no longer an experiment. The purposes which seemed to warrant its establishment have been steadily kept in view and the end of its second calendar year sees it occupying an important place in the Division of Communicable Diseases.

The number of new patients has increased, as well as the number of revisits.

With the co-operation of the New York Diet Kitchen Association milk and eggs are now supplied to needy patients who require extra diet.

Since the opening of the State Sanatorium for Incipient Tuberculosis at Ray Brook, New York, a large number of applicants for admission to that institution have been examined and many recommended as suitable cases. Some of these on their return, with their disease arrested, have been kept under observation here.

In June the use of the clinic on Tuesday, Thursday and Saturday evenings from 8 to 9 P. M., with the necessary nurses, attendants, instruments and supplies, was offered to a committee of the colored physicians of the city, for the care of people of their own race exclusively, the classes to be entirely under the control of a staff of colored physicians. It was hoped that this would stimulate the interest of the colored people of this city, physicians, clergymen and laymen, in the subject of the control of tuberculosis, which disease is so prevalent among their people. This hope was not realized, and on December 31, 1905, the closing of these special classes was recommended for the following reasons:

1. The small number of *new* patients seen.
2. The fact that most colored people prefer the regular clinics.
3. The lack of training and efficiency of the colored physicians.

A new history card has been in use during a large part of the year: it is much more complete, comprehensive and valuable for statistical purposes. Owing to its increased scope more time is consumed in taking histories. One nurse in the registration room cannot correctly complete more than eight histories in the restricted time of each clinic.

Another nurse or clerk is needed for this work. The hospital clerk at present detailed to duty in the drug room might be used for this purpose, as suggested later. At the present time he assists with the histories, but the arrangement is not very satisfactory as it often delays the dispensing of medicines.

Little has been done in radiography and radiophotography because of the lack of proper facilities. The provision of a dark room will enable us to make proper use of these methods of diagnosis, which it is claimed are especialy valuable in incipient cases.

The throat clinics are becoming too crowded. Every new patient should have a throat examination as part of the clinic routine, and there is enough work to justify opening a throat clinic at every class instead of three times a week. Owing to the restricted space, it is not feasible for more than one laryngologist to work at a time.

The visits of the district nurses to clinic patients in their homes have not been as frequent as is advisable or as satisfactory as could be desired. This is partly because of the apparent lack of interest of the attending physicians in this phase of the work and also because of the frequent failure on the part of the nurse to return a proper report as to essential details of these visits. It is proposed to have these visits made more frequently and to overlook the reports more carefully during the coming year, and it is earnestly recommended that this work be extended along the lines of legitimate nursing. Many patients are occasionally too ill to attend the Clinic; many during the febrile stage should be kept in bed; the proper administration of extra diet ordered, and its being used by the patient and not by some other member of the family should be controlled; incipient cases attending morning clinics require afternoon records of temperature and pulse, as aids in diagnosis; and, finally, the number of cuspidors found in use instead of spit cups, the overcrowding and the frequent lack of observance of all precautions, demonstrate the need of closer supervision of patients in their homes by nurses.

The large number of cases (47 per cent.) considered to be tuberculous in whose sputum no bacilli are found seems to justify more careful searching of smears or more refined laboratory methods. In such cases liquefying of the sputum by caustic potash and the examination of

the centrifuged sediment has been introduced and has given such good results that further experiments along these lines will be made.

It is proposed to review all the records for statistical purposes and to endeavor to determine the effect of sanatorium treatment on patients sent to various institutions.

Brief Summary of Data Obtained by Nurses' Visits to Clinic Patients.

Number of patients visited	1,387
Living in tenements	1,094
Other Cases in Family—	
One case	51
Two cases	11
Cubic air space, 5,000 feet or over	317
Sputum Disposal—	
Cuspidors	693
Sanitary cups	118
More than six persons living in three rooms or less	33

The drug room of the Clinic being properly a supply station of the drug laboratory, it is recommended that this department of the Clinic be placed under the control of the drug laboratory, and that the employee detailed to dispense medicines be able to speak German and Yiddish. At present much difficulty is experienced in directing the many foreign born patients how to use the medicines prescribed.

Experiments have been made in the manufacture of pocket sputum cups, sputum cup refills, and aseptic drinking cups; these have been so satisfactory that the trade articles formerly used have been discarded. As these used to cost 2½ cents each and we make perfectly serviceable substitutes for about that much a dozen, the advantage is apparent.

Should the change suggested in the drug room be approved, the drug clerk could also make these articles, fold gauze handkerchiefs, etc., and act as an interpreter.

Some improvements and renovations are required in the building and fittings for which special requisitions will be made later. Once each week thorough formalin fumigation is done. Twice during the year cultures made from the various parts of the building have failed

to show any growth of tubercle bacilli. It is, therefore, assumed that there is little or no danger to physicians and employees working there.

Detailed statistics for the year are given in the statistical section of this report. Comparative figures for 1904 (last nine months) are also given.

Distribution of Milk and Eggs to Consumptives.

In June, 1904, the Department of Health, recognizing the importance of special extra diet in the treatment of pulmonary tuberculosis, and that many patients are too poor to obtain the same, made an arrangement with the New York Diet Kitchen Association for the free distribution of milk, the cost of which was at first met by them, but since January, 1905, has been borne by this Department.

When the physicians of the tuberculosis clinic or the district tuberculosis nurses considered it advisable that a patient should have such extra diet, from one to three quarts of milk daily were ordered; the blank order form of the New York Diet Kitchen Association being given to the patient, who then applied at the diet kitchen nearest to his home; a card index was kept of each order issued. These kitchens are situated at:

No. 146 Seventh street.
No. 325 East Twenty-first street.
No. 140 East Ninety-seventh street.
No. 137 Centre street.
No. 26 Barrow street.
No. 423 West Forty-first street.
No. 205 West Sixty-second street.

All these, except No. 26 Barrow street and No. 205 West Sixty-second street (recently established), now supply milk, but at first only four kitchens were contracted with as distributors. The orders for milk are issued for one month only and are renewed at the expiration of that time, renewals being carried on for varying periods if diet seems to be required.

As it was felt that this extra diet should also include eggs, this Department agreed in July, 1905, to bear the cost of supplying them together with the ice-boxes and ice needed, to certain of the branch

kitchens. This, as well as the distribution of milk, has been extended until now all the branches named, except that at No. 205 West Sixty-second street, supply both milk and eggs.

The use of milk and eggs is certainly an important and essential element in the treatment of pulmonary tuberculosis, but the free distribution of such extra diet has always proven a difficult matter to manage justly, with proper economy, and without pauperizing the recipients. It should not be considered as charitable aid, but as medicine, and a part of the rational treatment of the disease; it should be prescribed by a physician, and should not be supplied even then unless the patient's financial circumstances justify it, and the patient should be kept under observation so that it may be assured that he and he only is using the diet and that renewals of orders are necessary. While all this was recognized by this Department at the outset, yet it was impossible to make the necessary investigations which such procedure demanded, so that all patients reported as tuberculous and considered to be in need, were supplied without sufficient careful investigation.

To properly carry on this work the following routine procedure has now been adopted: All patients, whether recommended by nurses, inspectors or clinic physicians, are referred to the Charity Organization Society (if Hebrews to the United Hebrew Charities) for investigation. In addition, special visits and reports are also made by Department nurses. The extra diet is ordered and supplied at once, but is immediately discontinued if reports from these societies or nurses indicate that such aid is not necessary. In this way the services of trained investigators whose business it is to determine the worthiness of applicants for charity are now at the disposal of the Department. The following special order form for milk and eggs is delivered by a nurse to the patient and by him presented at the nearest branch kitchen. The upper portion is retained by the patient as an order, and the quantities of milk and eggs entered in duplicate on the lower portion, which is returned as a voucher with the monthly bills sent by the District Kitchen Association to this Department.

DEPARTMENT OF HEALTH

.....190

To the New York Diet Kitchen Association:

Kindly furnish.....(quarts of milk),

.....(eggs),

daily to.....

Address.....

from.....to.....190

Recommended by (Clinic). (District Nurse).

.....

Inspector-in-Charge.

Delivered by.....Nurse

NEW YORK DIET KITCHEN ASSOCIATION

to the DEPARTMENT OF HEALTH OF NEW YORK CITY:

.....

Upon your requisition of.....we have furnished to

.....(Address).....

during the month of.....:

MILK.	EGGS.	MILK.	EGGS.
1.		17.	
2.		18.	
3.		19.	
4.		20.	
5.		21.	
6.		22.	
7.		23.	
8.		24.	
9.		25.	
10.		26.	
11.		27.	
12.		28.	
13.		29.	
14.		30.	
15.		31.	
16.			

NEW YORK DIET KITCHEN ASSOCIATION

to the DEPARTMENT OF HEALTH OF NEW YORK CITY:

.....

Upon your requisition of.....we have furnished to

.....(Address).....

during the month of.....:

MILK.	EGGS.	MILK.	EGGS.
1.		17.	
2.		18.	
3.		19.	
4.		20.	
5.		21.	
6.		22.	
7.		23.	
8.		24.	
9.		25.	
10.		26.	
11.		27.	
12.		28.	
13.		29.	
14.		30.	
15.		31.	
16.			

[*Addendum.*—In Brooklyn, where the distribution of free extra diet was only begun in 1906, the Brooklyn Bureau of Charities has undertaken the work of distribution and investigation, and has established stations at 191 Marcy avenue, 174 Johnson street, 1660 Fulton street, and 98 Sackett street, equipping them with ice-boxes and supplying ice, the cost of the milk and eggs only being borne by this Department. Recommendations are made by Department nurses on their "nurses' cards" from which orders are made out at the Brooklyn office, and mailed to the nurse who signs and delivers them to the patient. The same order forms are used as in Manhattan. Within a week each patient is revisited by the nurse to ascertain that diet is being obtained and properly used. Records are kept in both the Manhattan and Brooklyn offices of all orders issued.] The proposed establishment of a branch of the New York Diet Kitchen Association in The Bronx will be of great assistance in extending the tuberculosis work in that borough. No extra diet is distributed in the Boroughs of Queens and Richmond.

As to the necessity for such extra diet, regardless of its value as a medical measure, it may be said that of the 1,113 patients visited by Department nurses in Manhattan, 632 or over 50 per cent. were found to have insufficient food. It has proved to be a necessary part of the general tuberculosis work and under careful supervision is probably rarely misapplied.

It would be impossible to state the results attained without a careful tabulation of the histories of clinic patients.

Following is a summary of the amounts of milk and eggs distributed in Manhattan:

1904—*June* 1 *to December* 31.

Tuberculosis Bureau—

Amount not definitely known.

To patients under treatment at Department Clinic—

1904—*June* 1 *to December* 31.

Milk—4,800 quarts given to 53 patients.

1905.

Milk—12,510 quarts given to 71 patients (including renewals).

Eggs—9,757, July 16 to December 31.

To patients under treatment at other clinics—

1904—*June* 1 *to December* 31.

Milk—Amount not definitely known.

1905.

Milk—17,961 quarts given to 518 patients (including renewals).

Eggs—7,163 given to 642 patients, July 1 to December 31.

BERTRAM H. WATERS, M. D.,
Chief of Clinic.

RIVERSIDE SANATORIUM.

This Sanatorium consists of four (4) pavilions, viz.: Nos. 9, 10, 11, 12. Pavilion No. 9 is used for females only and is divided into wards, A, B, C, D, containing 22 beds. Patients are received in Ward B. where they remain if moribund. If on the other hand, the patients are in a fairly good condition and run a high temperature only occasionally, they are transferred to Ward A, and if afebrile and in good condition to Wards C and D.

Pavilions 10, 11 and 12 are for the treatment of male patients, and contain 60 beds, pavilions 11 and 12 being divided into Wards A and B and containing 24 beds each. Ward B in Pavilion No. 11 is the receiving Ward, answering the same purpose as does Ward B in Pavilion No. 9 for females. Ward A in Pavilion No. 11 and Pavilion 10 and 12 contain cases corresponding respectively to those in Waid A, Pavilion No. 9. and Wards C and D, Pavilion No. 9.

Pavilion No. 10 contains only 12 beds in Wards C and D. Ward A is utilized for the bacteriological laboratory and doctor's office and Ward B for dining hall for all male patients who are not confined to the wards.

The following figures will show the number of patients treated, discharged and died:

Number of cases in sanatorium January 1, 1905	66
Number of cases admitted	206
Number of cases treated	272
Number of cases discharged	114 (42%)

Of this number there could be found only 109 charts and of those cases there were:

Failed	8 (7%)
Unimproved	26 (24%)
Improved	75 (68½%)
Number of deaths	81 (30%)

Number of cases in sanatorium December 31, 1905	77

Of these cases there were:

Failed	12 (16%)
Unimproved	14 (18%)
Improved	51 (66%)

The length of time that the patients (who were afterward discharged) remain in sanatorium is from one day to fourteen months with an average of four months.

Average number of pounds gained by discharged cases, 12.

Improvements for 1905.

Completion of Solarium for male patients.

Completion of summer house for female patients.

F. S. WESTMORELAND, M. D.,
Physician in Charge of Tuberculosis Wards.

Diagnosis Laboratory.

Report of Assistant Director.

The work of the diagnosis laboratory has been satisfactory but has increased to such an extent that the proposed plans for enlargement and improvement of the present quarters should be carried forward without delay. The original records of all examinations except those from Queens are now sent to the respective borough offices for filing. The reports of the results of examination are telephoned and mailed to physicians from these offices, while reference lists are kept on file at the Manhattan office. In this way the Assistant Sanitary Superintendents of the various boroughs have ready access to the records.

Tuberculosis.

The vacating of the rooms formerly occupied by the Supervising Inspector of Buildings has provided a temporary room for the staining of specimens, and has emphasized the need of a well-equipped room for all work connected with tuberculosis. To facilitate and expedite the work, laboratory assistants are now on duty at night; they open all specimens brought in from the boroughs of Manhattan and Brooklyn, including diphtheria, typhoid and malaria, mark the slips and specimens with corresponding day numbers, and arrange them in order for examination; prepare and stain smears from the sputum specimens brought in from these two boroughs, and arrange the slides in order for examination. The specimens coming in during the night and all coming from The Bronx, Queens and Richmond are prepared early in the morning. Each specimen is emptied into a petri dish so that suitable portions may be picked out. Microscopical examination begins at 9 o'clock, from three to four examiners being employed; the preliminary examinations are finished by 10.30 o'clock. A second thorough examination of negative specimens with the mechanical stage goes on while the written reports of positive specimens are being prepared. Slips and reports are then compared and the latter signed. As a rule the reports are mailed by one o'clock—a saving of from two to four hours over previous methods. The number of specimens examined during the year was 1668 more than in 1904 which is just about the increase in the number of reported cases.

Diphtheria.

In addition to opening and marking all specimens brought in from Manhattan and Brooklyn the laboratory assistants on duty at night prepare a list of all primary cultures coming from Manhattan except those taken by the district inspectors, said list containing the name and address of the patient and the name and telephone number of the doctor or antitoxin inspector who took the culture. The results of examinations are entered on this list as well as upon the culture slips and it is sent in to the telephone operator while the culture slips are sent at once to the office for preparation of reports. This method has resulted in the saving of considerable time. Lists of cases from all the other boroughs are prepared similar to the above, except that the name of the doctor or inspector is omitted and the character of the culture (whether primary, confirmatory or secondary) is entered. All these lists are kept on file in the laboratory, while the culture slips from all the boroughs except Queens are returned to their respective offices whence reports are telephoned and mailed. No changes have been made in the system of reporting the results of examinations. The following table shows that while the number of indecisive (doubtful) results was higher in 1905 (3.2 per cent.) than in 1904 (2.2 per cent.), yet, the number of those doubtful cases eventually proving to be true diphtheria, was only 16.8 per cent. in 1905 as compared with 39 per cent. in 1904.

Table Showing Number of True, False and Doubtful Cultures; Number of Confirmatory Cultures Showing Diphtheria Bacilli, and Percentages.

	Number of Cultures.		Confirmatory Cultures, True.		Per Cent.	
	*1904.	†1905.	1904.	1905.	1904.	1905.
True	7,837	8,823	....	....	....	....
False	9,692	12,061	112	130	1.1	1.
Doubtful	412	696	153	117	39.	16.8
(B) Scanty	148	186	43	23	29.	12.3
(C) Contaminated	95	103	38	20	40.	19.
(E) Suspicious	103	282	58	65	56.	23.3
(F) Laryngeal	66	125	14	9	21.	7.1
Doubtful per cent. of total	.....	.....	....	....	2.2	3.2

*Manhattan and Bronx, 1904. †Greater New York, 1905.

On Sundays and holidays the same routine is observed. The number of specimens examined during the year was 5,610 less than in 1904. This is accounted for by the fact that diphtheria was much less prevalent, the total number of cases reported being nearly 5,000 less than in 1904.

Typhoid Fever.

The only change made in the method of examination of blood specimens for the Widal reaction has been the abolition of the preparations in 1-10 dilution as it was found that the results of this dilution were unsatisfactory and the examination consumed valuable time. The number of specimens examined during the year was 837 more than in 1904, although the total number of cases of typhoid fever reported was only 81 more than last year. Apparently physicians are using the diagnosis laboratory more often as a means of accurate diagnosis in this disease. There was also an increase of 221 examinations of specimens of urine for the Diazo reaction. The presence of a positive Diazo reaction is, however, no longer accepted as final proof that a case is one of typhoid fever.

Malaria.

There has been no change in the method of examination of blood smears for the malarial plasmodium. During the year 1,035 specimens were examined as against 809 in 1904; 150 of which were positive—a percentage of 14.5 per cent. as compared with 1.7 per cent. the previous year. Physicians are beginning to appreciate the value of sending in specimens of blood earlier in the disease than formerly.

Cerebro-Spinal Meningitis.

During the year specimens of cerebro-spinal fluid were examined for the meningococcus and of these fifty per cent. were positive. Also a large number of smears were examined from the noses of those ill with, and those exposed to, the disease. It was impossible, however, to distinguish the meningococci from the other varieties of cocci normally found in the nasal secretions.

Culture Stations.

There were at the end of 1905, 292 culture stations of the Department in Greater New York, divided as follows: Manhattan, 175; Brooklyn, 43; Bronx, 38; Queens, 28; Richmond, 8. Of the 175 stations in Manhattan 26 are regular stations visited daily by the collector and 149 sub-stations delivering to the nearest regular station. During the year 12 new stations have been established and 7 discontinued. In Brooklyn three of the stations are sub-stations and forty visited daily except Sundays and holidays, when 34 deliver specimens to other stations which are visited by the collector. Two stations have been established during the year. In The Bronx there are 38 stations, 10 of which are regular stations visited daily—eight new stations have been established and one discontinued. In Queens there are 26 stations—eleven visited daily—three of these are new and one station was discontinued. In Richmond there are eight stations—one a sub-station. No new stations have been established and none discontinued. The regular stations in the Borough of Manhattan have been furnished with steel cabinets for supplies and the reception of specimens left by physicians. These stations are visited twice monthly for the purpose of replenishing the stock of supplies. It is proposed to furnish the regular stations in other boroughs with these cabinets. It is planned to provide early in 1906 rubber caps for all culture tubes delivered to the sub-stations and special sealed tubes for very distant stations where the demand is small; envelopes to contain the culture and swab tubes, and slip, are also in course of preparation. Monthly inspections of all the sub-stations have been made and at various times the files of the orders received have been gone over. When a considerable period of time had elapsed since the last order, the attention of the proprietor of the station was called to the fact with a request to examine stock. Several stations have been discontinued for wilful disregard of the regulations of this Department.

LeRoy W. Hubbard, M. D.,
Acting Assistant Director of the Diagnosis Laboratory.

ADMINISTRATION OF DIPHTHERIA ANTITOXIN.

As shown in the general table of statistics and on the chart of the weekly prevalence of communicable diseases, there was a marked reduction in the number of cases of and deaths from diphtheria in New York City during 1905, there being a decrease of over 4,000 cases and 600 deaths. The death rate was reduced from 5.64 per 10,000 to 3.64, and the case fatality was also slightly lessened. The reduction was especially marked in the borough of Manhattan, as shown in the following table:

DIPHTHERIA.

Manhattan and Bronx.

	Cases.	Deaths.	Case Fatality.	Death Rate per 10,000.	Prevalence Rate per 10,000.
1893	7,021	2,558	36.4	14.53	39.3
1894	9,641	2,870	29.7	15.86	53.2
1895	10,353	1,976	19.1	10.52	55.2
1896	11,399	1,763	15.4	9.12	59.5
1897	10,896	1,590	14.6	8.10	56.1
1898	7,593	923	12.2	4.67	38.4
1899	8,240	1,087	13.1	5.39	40.9
1900	8,364	1,121	13.4	5.45	40.6
1901	7,726	1,227	15.9	5.79	36.4
1902	10,429	1,142	10.9	5.23	47.7
1903	11,662	1,302	11.2	5.79	51.8
1904	12,517	1,311	10.5	5.65	53.9
1905	8,540	860	10.0	3.60	35.7

It will be seen that the case fatality, death rate, and prevalence rate of diphtheria were lower in 1905 than ever before. The reduction in the death rate was especially marked. Some credit for these good results must be given to the increased use of antitoxin, earlier, and in larger doses. Practically all physicians in Greater New York use antitoxin; this has been ascertained by direct inquiry in every case

reported; it is also shown by the low case fatality of "private" cases of diphtheria as given in the following table:

	Cases.	Deaths.	Case Fatality.
Cases injected by Department inspectors.	2,148	128	5.9
Cases injected at Department hospitals.	1,482	308	20.7
Cases by physicians with free antitoxin furnished by the Department.....	1,553	176	11.3
Cases treated by private physicians.....	8,495	857	10.0
	13,678	1,469	10.7

The hospital cases are often moribund on admission, and come from among the very poor—hence the high case fatality. The cases injected with free antitoxin also occur exclusively among the very poor. The following report was submitted during the year:

TEN YEARS' EXPERIENCE WITH DIPHTHERIA ANTITOXIN.

The Work of the Department of Health from 1895 to 1905.

The administration of diphtheria antitoxin in cases of diphtheria occurring in New York City was begun by the Department of Health in 1895. Ten years have elapsed and it is now possible to estimate the results obtained, not only for a given year, but for group of years. The steady reduction in the case fatality and death rate of the disease is well shown in the following table:

Table I.

Diphtheria—Cases, Deaths, Case Fatality and Death Rate in Manhattan and The Bronx for Three Year Periods—1889 to 1904.

	Cases.	Deaths.	Case Fatality, Per Cent.	Death Rate (Annual).	Population.
1889-1891.....	16,203	6,044	37.3	125.1	1,659,654
1892-1894.....	21,846	7,534	34.4	142.4	1,809,353
1895-1897.....	32,648	5,329	16.3	92.4	1,940,553
1902-1904.....	34,608	3,755	10.8	55.5	2,235,060

The case fatality has apparently been reduced over 200 per cent., and the death rate over 100 per cent. It is doubtful, however, if the case fatality was ever over 30 per cent.; previous to 1894 many of the mild cases escaped recognition, there being no bacteriological diagnosis. The decrease in the death rate, however, is to be depended upon. In 1891, with a population of 1,659,654, there were 1,970 deaths from diphtheria; in 1904, with a population of 2,235,060, only 1,311 cases proved fatal.

Turning now to the records of the cases in which antitoxin was administered we shall see that very much better results are being obtained at present than during the first few years following the introduction of antitoxin. No records of the results obtained by the Department for the years 1898 to 1901 (inclusive) are available, for the reason that during those years the special corps of antitoxin Inspectors was discontinued. The injections were given by the diagnosticians of the Department, who from being overworked were unable to properly record the results.

TABLE II.

Cases of Diphtheria in Manhattan Treated with Antitoxin by Inspectors of the Department of Health, City of New York, Showing Cases, Deaths and Case Fatality, Inclusive and Exclusive of Moribund Cases, for Three Year Periods— 1895-1897 *and* 1902-1904.

	Cases.	Deaths.	Case Fatality, Per Cent.	Moribund Deducted.	Cases.	Deaths.	Case Fatality, Per Cent.
1895-1897.....	2,447	361	14.7	151	2,296	210	9.2
1902-1904.....	4,730	298	6.3	101	4,629	197	4.2
1895-1904.....	7,803	727	9.3	273	7,530	454	6.0

During 1895-97 the case fatality rate of all patients injected was reduced from over thirty per cent. to fourteen per cent. During the three years ending January 1, 1905, it was reduced over 100 per cent., *i. e.*, to six per cent. The same proportion holds good after deducting the cases that were dying when first seen by the inspectors. Almost twice as many cases were treated during the second period, and yet the number of deaths was twenty per cent. less. In laryngeal diphtheria (what was formerly known as croup)—that terrible form of the disease—the same improved results are shown.

TABLE III.

Cases of Laryngeal Diphtheria in Which Antitoxin Was Administered by Inspectors of the Department of Health in Manhattan for Three Year Periods, Showing Cases, Deaths and Case Fatality, Inclusive and Exclusive of Moribund Cases.

	Cases.	Deaths.	Case Fatality, Per Cent.	Moribund Deducted.	Cases.	Deaths.	Case Fatality, Per Cent.
1895-1897	641	186	29.0	83	558	103	18.4
1902-1904	628	106	16.8	48	580	58	10.0
1895-1904	1,269	292	23.0	131	1,138	161	14.1

The case fatality rate has been decreased one-half from the figures of 1897 when antitoxin had been in use three years. In the old days the majority of all laryngeal cases proved fatal. During the last three years ninety per cent. of the patients not already dying when first seen have been saved. Further, the incidence of laryngeal diphtheria has been greatly lessened. Of the 2,477 cases treated between 1895-1897, 641, or 26 per cent., were laryngeal. Of the 4,730 cases treated from 1902-1904 only 628, or 13 per cent., were laryngeal. There can be no doubt that this decreased frequency of laryngeal involvement is directly due to earlier, larger and more frequently repeated doses of antitoxin. Considering the operative (intubation) laryngeal cases separately, the improvement in results has not been so marked.

TABLE IV.

Cases of Laryngeal Diphtheria, in Which Intubation Was Performed and Antitoxin Administered by the Department of Health in Manhattan, Showing Cases, Deaths and Case Fatality, Inclusive and Exclusive of Moribund Cases, for Three Year Periods—1895-1897 *and* 1902-1904.

	Cases.	Deaths.	Case Fatality, Per Cent.	Moribund Deducted.	Cases.	Deaths.	Case Fatality, Per Cent.
1895-1897	144	56	38.8	18	126	38	30.1
1902-1904	133	39	29.2	11	122	28	22.9
1895-1904	337	113	33.0	33	304	80	26.3

The great majority of laryngeal cases are now taken to the diphtheria hospitals of the Department, the physicians recognizing that the patients should be under constant supervision, to prevent accidents—coughing up or stoppage of the tube, etc.

In patients injected by private physicians with antitoxin furnished free of charge by the Department of Health, the results have been very good.

TABLE V.

Cases of Diphtheria Treated by Private Physicians with Antitoxin Furnished Free by the Department of Health in Manhattan, Showing Cases, Deaths and Death Rate, Moribund Cases, Included and Excluded, for Three Year Periods, from 1895 to 1905.

	Cases.	Deaths.	Case Fatality, Per Cent.	Moribund Deducted.	Cases.	Deaths.	Case Fatality, Per Cent.
1895-1897	1,244	235	18.8	83	1.161	152	13.8
1898-1901	5,772	675	11.6	275	5,497	400	7.2
1902-1904	4,047	467	11.5	148	3,899	319	8.1
1895-1904	11,063	1,377	12.4	506	10,557	871	8.2

The above table shows that the case fatality for the last two three-year periods is sensibly lower than that for the first three-year period. About the same number of cases are being injected each year. There is still room for improvement; many instances are reported of fatal cases not receiving antitoxin until after the fifth day of the disease, and the majority of the fatal laryngeal cases do not receive antitoxin until it is too late.

Immunization—Every effort has been exerted to bring about widespread immunization of all persons who have been exposed to diphtheria. The increase in the number of persons thus protected against the disease has been very gratifying. This is shown in the following table:

TABLE VI.

Showing Number of Cases in Which Antitoxin Was Given for Immunizing Purposes in Manhattan.

	Number of Persons.	Number of Cases of Diphtheria Developing after 24 Hours and within 30 Days.	Per Cent.
By inspectors, 1895-1899	5,108	22	0.4
By inspectors, 1902-1904	40,935	68	0.1
By physicians, 1899-1904	5,968	30	0.5

The work of the antitoxin inspectors is judged partly by the number of immunizations performed; they are instructed not only to immunize every one in the family of the patient, but also all children in families on the same floor, and throughout the house, if the parents' consent can be obtained. As is shown, less than one half of one per cent. of children immunized contract the disease.

The Department of Health now has (exclusive of the cases treated in the Department hospitals) records of 22,567 cases of diphtheria treated with its antitoxin, of which (excluding the moribund cases) 1,515 were fatal, a case fatality rate of 6.7.

The object of this report is not to testify to the value of diphtheria antitoxin, nor to contrast its results with those of preantitoxin days, but to show that with increase in our knowledge, antitoxin is giving better results now than during the first years of its introduction. And when the world—not physicians alone, but the general public—realizes the importance, the necessity, of the earliest possible administration of sufficiently large doses of antitoxin in every case of diphtheria, then this disease, once so dreaded, will be feared no more than measles or whooping cough.

There is no longer any question as to diphtheria antitoxin being the specific remedy for diphtheria. It has now its place beside quinine and mercury in the narrow circle of the true specifics where "many are called and few are chosen," and where, let us hope, it will soon be joined by other equally specific antitoxic sera. It is one of the greatest triumphs of medicine—a product of patient industry and logical deduction.

TYPHOID FEVER.

During 1904 the sanitary supervision of typhoid fever in Manhattan was transferred to the Division of Bacteriology. By the first of January, 1905, a system of investigating and recording all facts connected with the disease had been devised and introduced. With the change of title of the division and the extension of its authority to the other boroughs, this system was introduced throughout the Greater City.

The following report was submitted during the year:

Typhoid Fever in the City of New York during 1905.

The sanitary supervision of typhoid fever in the City of New York is under the care of the Division of Communicable Diseases of the Department of Health.

The routine procedure is as follows:

In accordance with section 133 of the Sanitary Code, cases of typhoid fever are reported by means of (*a*) postal cards from physicians; (*b*) postal cards from hospitals and institutions; (*c*) specimens of blood and urine forwarded to the diagnosis laboratory for examination; (*d*) citizens' complaints; (*e*) death certificates. A special history blank calling for all desired information is used, a sample of which follows:

DEPARTMENT OF HEALTH—The City of New York

Division of Communicable Diseases Borough of _____

TYPHOID FEVER

Record No. _____ Date _____ Reported by _____ Address _____

Address _____ From _____ How Reported, P. B. O. T. C.

Name _____ Age _____ M. F. M. S. W. Nation _____ Occupation _____

Private Room, P. R., Lodging House, Hotel, Apart., Ten., No. Families _____ Sanitary Condition _____

Patient how long on premises? _____ Duration Illness _____

Room Disinfected _____ Result _____ Date _____

Terminal Disinfection _____ Result _____ Date _____

Shower Bath? _____ Room Space? _____

Other Cases in Family _____ Fever _____ Previous _____ Patient has Separate Room? _____ Nurse? _____

Do Patient Dress Hair Habitually Facing Mirror Possessing Linen? _____ Address Dairy _____

Do Patient Eat Raw Oysters? _____ Whence Obtained? _____

Water Supply during month preceding Illness: Pooled _____ Cistern _____ Tank _____

Was patient away from home for over part of a day and exposed to possibly infected water or milk during month preceding Illness? _____

Where? _____ Date _____ Was Source of Information Reliable? _____

Are all possible precautions being taken against spread of infection (disinfection of Urine, Stools, Bedding, Dishes etc.)? _____

What, if any, evidence was the source of infection? Infected Water? Milk? Oysters? Direct exposure to infection? Not to any evidence?

Remarks _____

_____

_____

_____

Notify _____ of vacation or change of address of the above named patient, etc.

(FRONT)

INSPECTOR'S REPORT

Removed to Hospital _____ Name _____

Premises fumigated _____ Bedding _____

Milk store inspected _____ Name _____

Address _____

Sanitary condition store _____

Sanitary condition milk _____

Other inspection: (Oysters, etc.) _____

_____

_____

_____

Complaint forwarded _____ to _____

Result _____

_____

Remarks _____

_____

_____

_____

Inspector _____ M. D.

Date _____

(BACK)

In all cases reported by private physicians, either by card or by Widal specimens, such a blank history is sent to the attending physician together with the following letter:

> DEAR SIR—The inclosed blank form is sent to you, with the request that you obtain from the patient, or, if that is not possible, from the patient's family, the desired information.
>
> An addressed, stamped envelope is inclosed, in which kindly return the form as promptly as possible.
>
> If at the expiration of two weeks no reply has been received the information will be obtained by an inspector of this Department.
>
> Respectfully,
>
> *Chief of Division.*
>
> (Inclosure.)

If no reply is received from the physician in two weeks it is taken for granted that an inspector of the Department may be sent to visit the patient, which is done. To special inspectors is assigned the duty of visiting all general hospitals at least once a week and obtaining full clinical histories of all new cases of typhoid fever. Such histories are then assigned to other inspectors who visit the homes of the patients and obtain the additional required information. After the recovery of the patient, or his death, or his removal to a hospital, disinfection of the bedding is carried out, but no fumigation of the room is performed except by special request.

The cases of typhoid fever are grouped into five classes according to probable source of infection and plotted by means of different colored pins, upon large, compoboard maps of the five boroughs of the city. These five classes are as follows:

White—No source of infection known.

Red—Patients who were out of the City during the four weeks previous to illness.

Blue—Patients who were habitual or occasional consumers of raw milk.

Green—Patients who were occasional or habitual consumers of raw oysters.

Orange—Patients who were directly exposed to infection fro patients ill with typhoid.

In visiting the houses of the patients the inspectors note all u sanitary conditions, the same being reported to and remedied eith by this Department or by the Tenement House Department.

A special circular has been prepared entitled, "How to Avoid t Contraction and Prevent the Spread of Typhoid Fever." One of the is left at the home of every patient visited by an inspector, and one sent to the private physician of every patient with a request that i or its equivalent, be given to the family of the patient. In addition fu verbal instructions are given by the inspector, as to the precautions t be observed. A postal card is left by means of which the Departme is notified when to send for articles for disinfection. When the diagnos is doubtful the inspector takes specimens of blood and forwards the to the diagnosis laboratory for examination for the Widal reaction. I case of any obvious neglect on the part of the attending physician, h is visited and requested to remedy the faulty conditions. If this not, or cannot be done, the patient is removed to a hospital. Knowledg of failure on the part of physicians to report their cases usually com to the notice of the Department through death certificates. If suc a case had not been reported during life, and had been under th physician's care for a week or more previous to death, an explanatio is demanded, and an action in court brought against the physician necessary. But practically all physicians now promptly report the cases. By these various means full information is obtained regardin every case of typhoid fever coming to the notice of the Department- probably fully 90 per cent. of all that occur.

Careful inquiry is made in every case as to whether the patient drank milk habitually or during the month preceding illness. If so, the dairy or store from which the milk was obtained is visited by an inspector who reports the conditions of the dairy or store on the following card:

Division of Communicable Diseases.

..... M

....., 190 .

Location, ...

Name, ...

Permit No. ..... Amount sold, ...

Cans are ....., properly cooled.

Temperature of milk, ...

Dipper is ..... clean. Does .....

connect with

{living room.
{W. C. apartment.

Remarks, ...

.....

.....

.....

.....

....., Medical Inspector.

If there is found any violation of the regulations of the Department of Health for the sale and care of milk, the same is promptly reported to the Division of Inspections of the Department which is in charge of the general supervision of the milk supply of New York City.

A special so called "Milk Index" is kept on the following ca which shows at a glance the number of cases of typhoid fever whi have used milk from any one dairy:

Milk Record.

Dealer ..... Wholesale ..... Retail ..... Both .....

Address, ..., Name, ...

Source of Supply, ...

.....

Date.	Name.	Address.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

With this card is filed the inspection card mentioned previou giving the result of the inspection of the dairy. In this way, shc any considerable number of cases occur among the patrons of a gi dairy the fact would be at once apparent. Finally, when three more cases of typhoid fever occur among the patrons of a dairy wit one month of each other, the facts are reported to the Division of spections and an investigation is made of the ultimate source of supply—that is, of the farms whence the milk is obtained—so t should a milkborne epidemic of typhoid fever occur it should be at c recognized and the necessary measures quickly instituted to sta it out.

TABLE I.

Typhoid Fever in Greater New York.

	Cases.			Deaths.			Death Rate per 10,000.			Case Fatality, Per Cent.			Population.		
	1903.	1904.	1905.	1903.	1904.	1905.	1903.	1904.	1905.	1903.	1904.	1905.	1903.	1904.	1905.
Manhattan	2,342	1,916	1,867	317	277	273	1.57	1.34	1.28	13.5	14.4	14.6	2,007,892	2,061,907	2,117,375
Bronx	120	220	327	33	32	37	1.36	1.25	1.35	27.5	14.5	11.3	241,788	256,924	273,007
Brooklyn	1,003	1,050	1,913	267	303	297	2.08	2.29	2.10	26.6	28.8	15.5	1,281,686	1,321,403	1,362,352
Queens	119	133	146	22	34	31	1.22	1.79	1.55	18.4	25.5	21.2	179,501	189,046	199,099
Richmond	87	93	73	14	15	11	2.00	2.11	1.52	16.0	16.1	15.0	70,556	71,743	72,947
Total	3,671	3,412	4,326	653	661	649	1.72	1.69	1.61	17.7	19.3	15.0	3,781,423	3,901,023	4,024,780

Table II. gives the same information from 1893 to date for the Old City of New York (the boroughs of Manhattan and The Bronx).

TABLE II.

Typhoid Fever in Manhattan and The Bronx.

	Cases.	Deaths.	Death Rate per 10,000.	Case Fatality, Per Cent.	Population.
1893	1,008	381	2.16	37.7	1,758,[illegible]
1894	792	326	1.80	41.1	1,809,[illegible]
1895	965	322	1.71	33.3	1,879,[illegible]
1896	1,002	297	1.53	29.6	1,934,[illegible]
1897	1,004	299	1.50	29.7	1,990,[illegible]
1898	1,535	376	1.83	24.4	2,048,[illegible]
1899	1,290	294	1.38	22.7	2,117,[illegible]
1900	1,759	372	1.81	21.1	2,055,714
1901	1,945	412	1.94	21.1	2,118,[illegible]
1902	2,629	400	1.83	15.2	2,182,[illegible]
1903	2,462	350	1.55	14.2	2,249,[illegible]
1904	2,136	309	1.33	14.4	2,318,[illegible]
1905	2,194	310	1.21	14.1	2,390,[illegible]

Manhattan—The weekly course of the cases and deaths is shown in the first table in the Manhattan report (page —): The greatest number of cases (100) was reported during the week ending September 2, the smallest, (7) during the week ending April 22.

The number of cases, deaths, death rate and case fatality were all lowered during 1905, the death rate (1.28) being lower than for years. The map of Manhattan, on which the cases were plotted, showed no definite localization, except that there were relatively more cases in the upper west side of the borough.

Brooklyn—Although quite an extensive outbreak of the disease occurred in Brooklyn during the summer of 1905, the total number of cases for the year being 1,913 as compared with 1,050 in 1904, yet the disease was of a very mild type, there being fewer deaths than in 1904, a lower death rate and a decrease in the case fatality of the disease of almost 50 per cent.

In July, 1905, there took place a marked increase in the number of cases, the weekly number reported rising from twenty to twenty-five. From that date the number of cases steadily increased until by Septem-

ber 1 there were 1,287 cases and 195 deaths, as compared with 483 cases and 152 deaths for the same period of 1904. The number of cases reported weekly reached the normal average number (25 to 40) about October 1. The epidemic was not very fatal, the case fatality being about 15 per cent. Of 1,081 cases plotted according to probable causation, on the map of Brooklyn, in 360 no cause could be assigned (probably due to infected water). Four hundred and two were milk drinkers. In 196 the disease was probably contracted out of the city. In 95 the disease was contracted probably from another case in the family. In 27 there was a history of oysters having been eaten.

The Thirtieth Ward—The outbreak of typhoid fever was especially marked in the 30th ward (Bath Beach and Bensonhurst), there being 109 cases reported during the first three weeks of August. A house-to-house visitation was instituted, and circulars of instructions strongly advising the boiling of all drinking water and milk were left at each house. On August 19, Dr. C. W. Berry, sanitary inspector, was given immediate supervision of typhoid fever in the 30th ward, a medical and sanitary staff being detailed to him for that purpose. 7,692 personal inspections were made, and 1,670 orders issued against existing unsanitary conditions. Of these 1,097 were against unnecessary cesspools and privy vaults, and 106 against wells and cisterns used for drinking water. Two hundred and fifty-eight sewer connections were ordered. Work was done in filling in offensive dumps and stagnant ponds, and in disinfecting offensive sewers and privy vaults. The water and milk supply, including the Ridgewood watershed, was investigated and a special report submitted. Of 60 wells used for drinking purposes, 47 were condemned as unfit for use after chemical analysis of the water.

Consideration of the facts make it probable that the majority of the cases were due to infected water, such infection taking place: (*a*) outside the city (sources of supply); (*b*) locally, from leaky cesspools; and (*c*) in Gravesend Bay, which is largely used for bathing purposes, and where many sewers empty. Direct contact probably played a considerable part also.

The Bronx—In this borough also there was a slight, fairly well localized outbreak of typhoid fever, late in the year. Between November 15 and December 31, 126 cases were reported. Of these 92 or 73 per cent. were in the area bounded by Westchester avenue, East One Hundred and Seventieth street, Tinton avenue and Washington avenue.

The death rate for the year was slightly increased, but the case fatality was diminished, it being lower than in any other borough. The same steps were taken as in Brooklyn; a house-to-house inspection made in all tenement neighborhoods, circulars of instruction widely distributed, and personal, oral instructions given to the family of each patient. By the 1st of January, 1906, the outbreak was at an end.

No evidence of any milk-borne infection was obtained, but it is interesting to note that the section of the borough above-mentioned received its water from the Williamsbridge reservoir, which is supplied by the Kensico and Byram water sheds. The southerly portion of the borough, supplied by the Westchester Water Co., and the westerly portion, supplied by the Croton water shed, had but few cases.

Queens—The number of cases and deaths were about the same as in 1904. The case fatality from the disease, for some unexplained reason, was extremely high in this borough.

Richmond—There were fewer cases and deaths than in 1904, both the death rate and the case fatality being reduced.

Greater City—Although there were almost 100 more cases in 1905 than in 1904 (due to the Brooklyn and Bronx outbreaks), yet there were fewer deaths, the death rate being reduced to 1.61 per 10,000, and the case fatality to 15 per cent.

Tabulation of Cases—As previously stated, detailed information was obtained regarding every case of typhoid fever occurring in the City of New York, especial attention being paid to the sources of infection. The results have been tabulated by boroughs and are given in the following table:

Typhoid Fever.

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Male	844	172	835	79	47	1,977
Female	728	136	667	58	19	1,608
Total number cases	1,572	308	1,502	137	66	3,585
AGE.						
0 to 1 year	3	....	5	....	....	8
1 to 5 years	72	19	89	4	2	186
5 to 10 "	169	46	137	26	3	381
10 to 20 "	426	93	402	44	8	973
20 to 50 "	810	132	753	44	48	1,787
50 and over	72	14	30	4	1	121
Not stated	20	4	86	15	4	129
OCCUPATION.						
Actress	10	....	4	....	....	14
Baker	10	2	9	....	....	21
Bartender	16	2	4	....	2	24
Cook	19	....	....	....	....	19
Clerk	185	44	155	13	9	406
Cigar maker	13	....	3	....	....	16
Carpenter	18	7	12	2	2	41
Housework	261	56	275	29	7	628
Laborer	112	9	74	18	3	216
Nurse	29	4	13	2	....	48
Outdoor	98	17	108	5	2	230
Painter	13	2	6	3	....	24
Physician	4	....	3	3	....	10
Plumber	13	4	8	6	....	31
Printer	10	....	32	....	....	42
Professional	34	6	45	....	2	87
Salesman	37	3	77	....	....	117
School	273	62	173	20	....	528
Sewing	59	8	32	1	2	102
Skilled artisan	23	19	43	6	3	94
Waiters	12	2	6	....	....	20
Workers at manual trades	55	12	79	14	2	162
None or not stated	268	49	341	15	32	705
Total	1,572	308	1,502	137	66	3,585

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
DWELLING.						
Private house	129	82	391	58	17	677
Boarding house	35	3	60	9	4	107
Lodging house	30	2	11	4	....	47
Hotel	28	....	....	3	....	31
Institution	3	....	3	....	....	6
Tenement	1,053	147	552	18	4	1,774
SANITARY CONDITION.						
Bad	81	43	158	1	....	283
BLOOD EXAMINED	1,048	156	621	69	53	1,947
Widal positive	938	124	514	61	38	1,675
Spleen enlarged	991	181	851	102	48	2,173
Rose spots present	846	156	835	102	43	1,982
Other cases—family	120	18	80	6	3	227
" house	32	9	76	3	3	123
" friends	32	5	51	5	....	93
Patient has separate room	602	161	996	81	17	1,857
Milk drinker	527	116	839	52	24	1,558
Oyster eater	136	17	98	10	2	263
WATER.						
Bottled	71	8	83	2	1	165
Croton	1,023	154	817	77	15	2,086
Tank	144	....	76	7	13	240
O. O. T. Yes	425	50	426	37	28	966
Precautions taken	1,236	237	1,301	120	58	2,952
SOURCE.						
Water	395	103	325	24	17	864
Milk	192	30	277	19	7	525
Oysters	69	1	50	4	....	124
Exposure	120	31	72	2	....	225
O. O. T	313	22	171	16	13	535
Unknown	483	121	607	72	29	1,312

REMARKS.

Sex—55 per cent. of the cases occurred in males, except in Richmond, where they constituted 71 per cent.

Age—About 50 per cent. occurred between the ages of 20 and 50 years. Only 8 (0.2 per cent.) patients were under one year of age, while 186 or 5.1 per cent. were between the ages of one and five years. Three per cent. were over 50. About the same percentages hold good for the various boroughs.

Occupation—The large percentage of clerks, school children and housewives is readily explained by the fact that so many of the population fall into those classes. Actresses and salesmen travel, and acquire their disease elsewhere. But why were no actors among the number? It is difficult to explain the high percentages of cooks, bakers and waiters; also of persons following one of the various occupations connected with sewing.

Dwelling and Condition—The social status of the patients can be gathered from the character of their dwellings. In Manhattan 66 per cent. were tenement house dwellers—*i. e.*, of the lower classes. In Brooklyn only 36 per cent. were tenement house dwellers. The proportion of dwellers in private houses was much higher in Brooklyn than in Manhattan. In 8 per cent. the sanitary condition of the dwelling was found to be bad, the proportion being highest in Brooklyn.

Result of Blood and Urine Examination—A blood test for the Widal examination was made in 54 per cent. of the cases, and the diagnosis confirmed in 86 per cent. 53 per cent. of the examinations were in Manhattan cases, as compared with 31 per cent. in Brooklyn. Yet the number of cases in the two boroughs was about the same.

Other Clinical Signs—Rose spots were present in 55 per cent. and enlargement of the spleen in 60 per cent.

Occurrence of Other Cases—Other cases occurred in the same family in 6 per cent. and in other families in the same house in only 3 per cent.

Source of Infection—In 2,273 cases an expression of opinion as to the probable source of infection was obtained from the attending phy-

sician or inspector as follows: Due to infected water, 38 per cent.; milk, 23 per cent.; oysters, 5 per cent.; exposure to other cases, 9 per cent.; infection acquired outside of New York City, 3 per cent.

These figures are of little value, however. About 10 per cent. of the cases were water drinkers, and 84 per cent. used City water.

General Conclusions—Typhoid fever is transmitted from the sick to the well in one of two main ways. 1. By infection of water with typhoid excreta. The great majority of all cases arise from this cause. From such infected water typhoid bacilli enter the human system through: (*a*) Drinking water; (*b*) milk (contaminated by water); (*c*) oysters; (*d*) food stuffs (salads, fruits, etc.); (*e*) water used for bathing purposes. 2. By direct contact of the well with the sick. 3. Infection of food stuffs, etc., by flies.

1. Infection of Water.

Proof of Infection—The one absolute proof of infection of water, milk, etc., is the detection therein of typhoid bacilli. Unfortunately, this is almost never possible of attainment. The occurrence of a case of typhoid fever is evidence only of infection two weeks previously. Typhoid bacilli may be present in water or milk for a day or two only, work a great deal of mischief in that time, and then disappear. The source from which infection comes may be transient—the accidental emptying of sewage into a water supply, the temporary encampment of a party of workmen or tramps by a stream or lake.

At present the bacteriologists practically discourage any hope of finding typhoid bacilli in samples of water, as the bacillus is differentiated with great difficulty from the other organisms almost invariably present, and as it is relatively short lived, examination for that end alone is usually a waste of time. Far more assistance is given by examination for the bacteria of sewage (the colon bacillus, etc.) and by chemical analysis. Given the presence of the colon bacillus and of ammonia and nitrites in water, it is practically certain that sewage contamination has occurred; that the water contains typhoid bacilli can be only a matter of inference. In small communities having limited and localized sources of water supply, tracing out the cause or causes

of an epidemic of typhoid fever is relatively simple. In New York City, with its many sources of water supply, some of them covering many square miles; its daily milk supply of thousands of gallons, coming from hundreds of different dairy farms; its supply of oysters from all along the Atlantic coast; and its green salads and fruits from everywhere—typhoid bacilli are probably brought in steadily and constantly by all of these.

Earlier in this report in the tabulation of data, the cases are classified according to supposed source of infection—water, milk, oysters, exposure to other cases, contraction of the disease outside the city, etc. The figures given are of relatively little value, however; the fact that a person drinks milk or water, eats oysters, has been out of town for a day or so during the preceding month, or has been exposed to another case of typhoid, does not alone warrant our ascribing the disease to that particular cause. Even the most confirmed drinker of bottled water, drinks Croton water now and then, and the hater of milk will occasionally take it in some form.

Taking up now the various sources of infection in turn:

1. *a. Drinking Water*—As has been said, it is at present practically impossible to detect typhoid bacilli in drinking water. Yet a visit to any of the various water sheds will convince the most skeptical of the extreme facility with which such contamination may take place. It is improbable that much, if any, local contamination occurs. In outlying sections of the city (*e. g.*, the Thirtieth Ward of Brooklyn) where drinking water is obtained from wells, leaky cesspools may cause infection. But where the water is piped and under constant pressure it is practically impossible for typhoid bacilli to gain ingress. As soon as the occurrence of an increased number of cases of typhoid fever was recognized in Brooklyn and The Bronx, the Department of Health, by means of circulars and oral instruction, urged most strongly that all water should be boiled before being used for drinking purposes in those boroughs. This advice was widely followed; in each borough the outbreak came to an end within a few weeks—*i. e.*, the period required to demonstrate the effectiveness of such a procedure.

Objections to the Drinking Water Theory.

The objection is at once raised by many that if the drinking water is responsible for much of the typhoid fever in New York, we should have instead of a hundred cases weekly, a thousand or ten thousand. Possible answers to such objections are as follows: (*a*) To contract typhoid fever the bodily powers of resistance to the entrance of bacteria must probably be below par. Unless typhoid bacilli are present in large numbers or are exceedingly virulent, the protective functions of the organism are sufficient to cope with them. Such functions are the secretion of acid bactericidal gastric juice, the bactericidal powers of the cells lining the intestinal canal, and the similar powers of the blood. But when temporary indigestion or diarrhoea are present, the defenses of the citadel are weakened and the enemy storms the gates. The case is analogous to cholera: during severe cholera epidemics it has been noted that diarrhoeas are prevalent, the drinking water containing organisms which set up such diarrhoeas inflaming and irritating the gastro-intestinal mucous membrane, and paving the way for the entrance of cholera bacilli.

Typhoid fever is more prevalent during the summer and autumn—might not this be partly due to the increased prevalence of other diarrhoeal diseases at that time? (*b*) It is extremely probable that a considerable proportion of the population is relatively immune to typhoid fever, from having previously suffered from the disease in an unrecognized form. The view that the disease invariably runs a course of from two to four weeks is no longer held by most authorities. Abortive forms occur lasting only a few days. As a rule such attacks are termed "bilious attacks," "ephemeral fever," etc. In the diagnosis laboratory of the Department of Health, it has frequently been noted that a typical Widal reaction may be present in the blood, and yet the entire duration of the febrile attack be only a few days.

1. *b. Milk*—The role played by milk in the causation of typhoid fever is not to be lightly disregarded. Undoubtedly a certain percentage of the cases of typhoid fever in New York City are milk-borne. The milk supply of the City comes primarily from hundreds of dairy farms, on any of which infection of the milk through washing the

cans, etc., with infected water may readily take place. Yet two facts must be borne in mind: (*a*) that the greater part of the milk supply of the City is controlled by a few large companies. All these companies maintain a staff of inspectors who visit each farm periodically to see that all conditions are satisfactory. (*b*) That the Division of Inspections of the Department of Health of New York City keeps careful watch over the milk supply of the City; not only are the individual distributing points under supervision, but following back through the wholesalers, the entrance of the milk into the city is most carefully watched—it must come up to a certain standard, must not contain more than a certain number of bacteria to the c. c., and must be properly cooled and shipped. Further, inspectors of the Department visit any farms forwarding unsatisfactory milk to determine if unsanitary conditions exist.

Recent Outbreaks—To show how carefully the evidence must be weighed, the experience of the Department of Health in connection with the recent outbreak of typhoid fever in Brooklyn may be cited.

Investigation of the source of the milk supply showed that of 941 cases 244, or 38.7 per cent., received their milk supply from one large wholesale and retail milk company. Examination of the milk records in other boroughs showed that the proportion of cases supplied by this same company was only seven per cent. It was at once thought that the cause of the epidemic was not far to seek, but further investigation showed that the milk of this company probably had nothing to do with the epidemic for the following reasons:

The company supplied fully 75 per cent. of the milk consumed in the Borough of Brooklyn. Of 113 milk permits in one ward this company had 89. Investigation of the company revealed the following facts: The officials expressed themselves as being most desirous of assisting the Department and working with it in any investigation thought necessary or advisable. The company constantly employed a physician and a veterinarian who made inspection of the farms and cattle. Such an inspection had been recently made. Moreover, when the daily papers intimated that one or two milk companies might have been at fault in this local epidemic, a special inspection was made of all farms whence

milk sent to Brooklyn was obtained. In all cases of illness on the farms supplying them the company shut off the milk, but continued to pay for it according to contract, thus removing temptation to conceal illness. There was no illness known of among either dairymen or cattle. The company at once ordered another inspection made of the farms supplying Brooklyn, special attention being paid to possible water contamination. This inspection showed that there had been no cases of typhoid fever on said farms for over two years. This incident has been described in detail as showing how readily a biased observer might have ascribed the cause of the epidemic to infected milk.

Bearing in mind that a great majority of persons use milk and cream, it is not to be wondered at that a history of such use is obtained in a large number of cases.

1. (*c*) *Oysters*—It is well recognized that raw oysters may contain living virulent typhoid bacilli, and may transmit the disease. The pernicious practice in this vicinity of fattening oysters in tide-water inlets, the water of which contains large quantities of sewage, is responsible. Yet only a small proportion of the total number of cases are due to this cause,—it is a curiosity more than anything else.

1. (*d*) *Infected Food Stuffs*—Theoretically, it is quite possible that green salads and fruits which have been sprinkled with infected water may be the means of transmission of typhoid fever. So far no authenticated case of such a mode of infection has come to our notice.

1. (*e*) *Infection of Water Used for Bathing Purposes*—At many places used for bathing purposes along the North and East rivers and the Long Island shore sewers empty in the immediate vicinity, and contaminate the water. The water may enter the mouths and noses of the bathers and be swallowed; if typhoid bacilli are present in sufficient quantity the disease is set up. In the Thirtieth Ward of Brooklyn (Bath Beach and Bensonhurst) this mode of infection undoubtedly played a considerable part in the outbreak. It was also found that in several instances (notably in the Harlem river) the public swimming baths were moored in the immediate neighborhood of discharging sewers; it is entirely possible that some of the users of said baths may have contracted typhoid fever. But as a cause of the disease bathing in infected water plays a part only in a few localities.

2 AND 3. TRANSMISSION OF THE DISEASE BY DIRECT CONTACT.

We have no means of determining what percentage of cases are due to the above cause. Judging by the number of instances in which two or more cases occurred in the same family, it is not considerable. Yet such cases undoubtedly constantly occur. Further consideration of this important side of the question is beyond the province of this report, as is the question of the relation between flies and typhoid fever.

Conclusion—In conclusion, therefore, it is the writer's opinion that the majority of cases of typhoid fever in New York are due to infected water. The grounds for such belief may be summed up as follows:

1. By exclusion. Investigation of the city's supply of milk, oysters, etc., has so far failed to reveal enough to account for the number of cases occurring in the city.

2. Distribution of cases into areas corresponding to different sources of water supply, (*vide*, The Bronx).

3. Ample opportunity afforded for infection in the various water sheds.

4. Suppression of outbreaks by the boiling of all drinking water and milk.

The remedies for this state of affairs can be put in a few words. 1. Isolation and protection of all sources of water supply. 2. Introduction of filtration systems. This has been strongly and ably urged by Dr. Thomas Darlington, President of the Department of Health, in his report to Mayor McClellan. 3. Education of the medical profession and public, outside as well as in the city, as to the necessity of the immediate sterilization of all typhoid excreta.

Could an efficient system of filtration of the water supply of New York City be introduced, there is every reason to feel confident that the death rate of typhoid fever of Greater New York would sink from 16 per 100,000 to 5 per 100,000 at the most. Such has been the result of the introduction of filtration in the large continental cities—Berlin, London, etc.—and it is due to such filtration and to nothing else.

Typhoid fever is a preventable disease. The mode of prevention seems clear; it is little short of criminal if the community fails to act.

CEREBRO-SPINAL-MENINGITIS.

The following report was submitted during the year:

Cerebro-spinal Meningitis in New York City during 1904 *and* 1905.

During the past forty years there have been four outbreaks of e demic cerebro-spinal meningitis in New York City.

The first, and up to that of 1904 and 1905, the most severe was 1872, when there were 782 deaths—a death rate of 8.70 per 10,000.

In 1881 and 1893 the outbreaks were not so severe; the number deaths being respectively 461 and 469, and the death rates 3.70 and 2 per 10,000. The latest epidemic, the severest in the history of the c began in the early months of 1904 and continued through 1905.

During 1904 there were 1,083 deaths, a death rate of 4.6 per 10,0 during 1905, 1,511 deaths—a death rate of 6.3.

The winters of 1872, 1881, 1893 and 1904 were what are known "hard winters"; being cold, with considerable snow. The disease always remained abnormally prevalent for a year or two after e outbreak, but up to the present one the number of cases during second year was considerably less. In 1905, however, the epide was much more severe than in the preceding year.

The following table gives the number of cases and deaths from cerebro-spinal meningitis in the old City of New York (boroughs of Manhattan and The Bronx) from 1866 to 1905.

TABLE I.

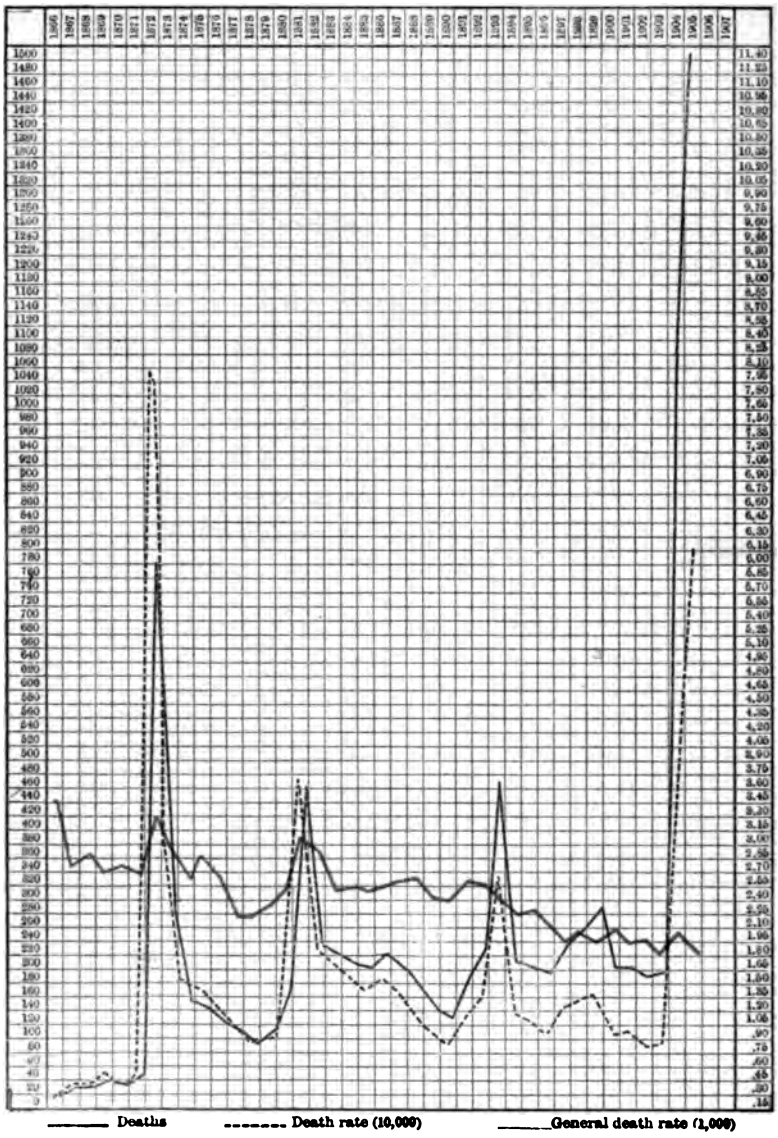
Deaths from Cerebro-spinal Meningitis, in the Old City of New York (Manhattan and The Bronx), with Populations and Death Rates Per 10,000.

Year.	Population.	Number of Deaths.	Death Rate per 10,000.	Year.	Population.	Number of Deaths.	Death Rate per 10,000.
1866	767,979	18	.23	1887	1,479,143	203	1.37
1867	808,489	33	.40	1888	1,522,341	173	1.14
1868	851,137	34	.39	1889	1,566,801	145	.93
1869	896,034	42	.47	1890	1,612,559	136	.84
1870	943,300	32	.34	1891	1,659,654	189	1.14
1871	955,921	48	.50	1892	1,708,124	230	1.35
1872	968,710	782	8.07	1893	1,758,010	469	2.67
1873	981,671	290	2.95	1894	1,809,353	213	1.18
1874	1,030,607	158	1.53	1895	1,873,201	204	1.09
1875	1,044,396	146	1.40	1896	1,906,139	178	.93
1876	1,075,532	127	1.18	1897	1,940,553	232	1.20
1877	1,107,597	116	1.05	1898	1,976,572	258	1.31
1878	1,140,617	97	.85	1899	2,014,330	287	1.42
1879	1,174,621	108	.92	1900	2,055,714	201	.97
1880	1,209,196	170	1.41	1901	2,118,209	201	.94
1881	1,244,511	461	3.70	1902	2,182,836	190	.87
1882	1,280,857	238	1.86	1903	2,249,680	195	.86
1883	1,318,264	223	1.69	1904	2,318,831	1,083	4.6
1884	1,356,764	210	1.55	1905	2,390,382	1,511	6.3
1885	1,396,388	202	1.45	1906	.....	.....	....
1886	1,437,170	223	1.55	1907	.....	.....	....

The same facts are shown in diagrammatic form in Table II., the course of the general death rate being shown in red.

TABLE II.

Chart Showing Number of Deaths from Cerebro-spinal Meningitis in Old City of New York and Death Rate Per 10,000 *of Population.*



Black Line—Deaths.

Black Dotted Line—Death Rate (per 10,000).

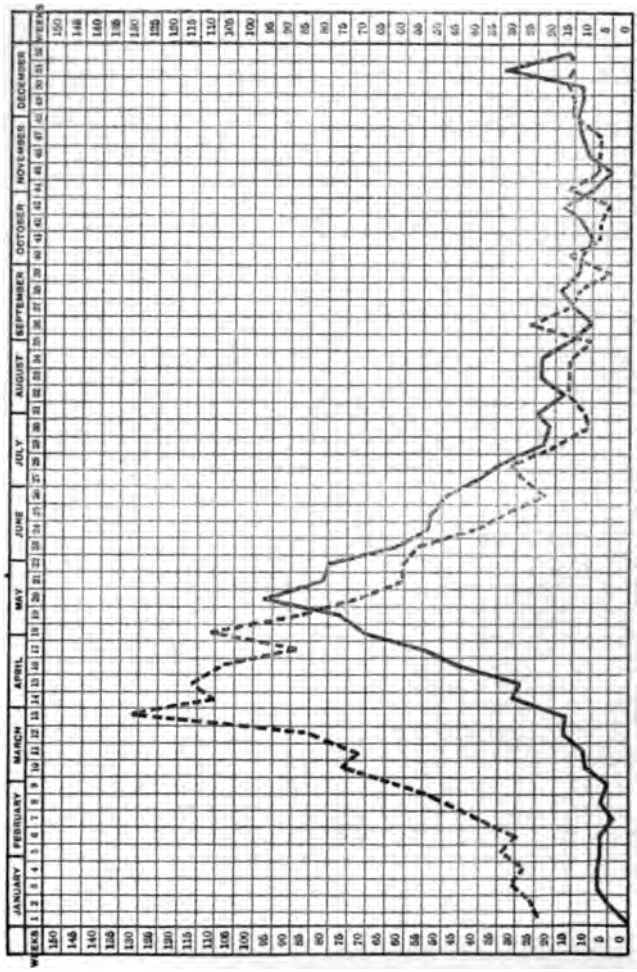
Red Line—General Death Rate (per 1,000).

This table shows: (*a*) the periodicity (about every ten years) of the outbreaks; (*b*) the greater severity of the 1904-1905 epidemic; (*c*) the lack of correspondence between the general death rate and that from cerebro-spinal meningitis. Only in 1904 did the two rise together, while in 1905 the former fell while the latter rose.

The weekly course of the disease during 1904 and 1905 is shown in Table III.

TABLE III.

Chart Showing the Number of Deaths from Cerebro-spinal Meningitis, by Weeks, for the Years 1904 *and* 1905.



It will be noted that the epidemic in 1905 began earlier in the year by over a month than in 1904, reached its highest point seven weeks earlier, exhibited a recrudescence early in May, another slight one in July, and died away about two weeks later. Every case of cerebro-spinal meningitis reported in Manhattan during 1905 has been plotted on a large map of the borough. In Plate IV. is shown a photograph of this map.

It shows very well the prevalence of the disease among the poorer classes and in the densely settled districts. That Italians are extremely subject to the disease is borne out by the map, the cases being most numerous on the lower East Side, the lower middle West Side, and the upper East Side (Little Italy).

The deaths for 1904, arranged by wards, are given in the following table:

Table of Deaths from Cerebro-spinal Meningitis, by Wards, for the Year 1904, Borough of Manhattan.

Ward.	Population, Census 1900.	Number of Deaths.	Death Rate per 10,000.	Prevailing Foreign Population.
First	9,516	5	5.25	Irish, Syrian.
Second	1,488	1	6.72	Irish.
Third	1,797	1	5.56	Irish.
Fourth	19,554	30	15.34	Italian.
Fifth	8,298	11	13.26	Irish, Italian.
Sixth	20,004	30	15.00	Chinese, Italian.
Seventh	89,237	83	9.30	Irish, Jews.
Eighth	29,059	31	10.67	Italian, Irish.
Ninth	59,650	41	6.87	Negroes, Irish.
Tenth	71,879	45	6.26	Hebrews.
Eleventh	99,144	38	3.83	Jews.
Twelfth	476,602	174	3.65	Jews, Italians.
Thirteenth	64,117	41	6.40	Roumanians, Jews.
Fourteenth	34,035	44	12.93	Italians.
Fifteenth	24,066	14	5.82	Italians.
Sixteenth	52,808	27	5.11	Irish, French.
Seventeenth	130,796	104	7.95	Hungarians, Jews.
Eighteenth	61,325	39	6.36	Jews.
Nineteenth	257,448	94	3.65	Bohemians, Hebrews.
Twentieth	89,798	45	5.01	Negroes.
Twenty-first	60,211	35	5.81	Irish, Americans.
Twenty-second	189,261	70	3.70	Negroes, Italians.
Total	1,850,093	1,003	5.42	

It will be noted that the high death rates (15.34 per 10,000 for the Fourth Ward, 15. for the Sixth Ward, etc.) occur in the wards in which Italians constitute the majority of the foreign population.

A Commission Appointed.

An attempt was made to investigate the disease during the spring of 1904, but no definite information was obtained beyond certain facts going to show that infection might be carried by means of the discharges from the body to the patient.

When cerebro-spinal meningitis again became prevalent, shortly after the beginning of 1905, the Board of Health determined to do all in its power to investigate the disease, particularly as to its mode of spread and possible modes of prevention. To this end, following the same procedure adopted in the case of the acute respiratory diseases, a commission for the investigation of cerebro-spinal meningitis was appointed. It was composed of the following physicians:

Dr. Thomas Darlington, President Board of Health.
Dr. Herman M. Biggs, Medical Officer.
Dr. W. K. Draper.
Dr. E. K. Dunham.
Dr. Simon Flexner.
Dr. Walter B. James.
Dr. William L. Polk.
Dr. William P. Northrup.
Dr. Joshua Van Cott.
Dr. Elser.

The commission had its first meeting on March 24, 1905, when it divided into clinical and bacteriological sections, each section to work along those respective lines.

At the same time a corps of inspectors of the Department of Health was organized for the investigation of the disease. These physicians were specially selected for the purpose, and further fitted themselves by observing a large number of cases of cerebro-spinal meningitis in the hospitals.

The commission urging that lumbar puncture be done in every instance for the purposes of diagnosis, of relief of pressure symptoms, and of providing material for bacteriological purposes, a special inspector of this Department was assigned to the performance of this operation when requested by physicians.

The sub-cutaneous and intra-spinous administration of diphtheria antitoxin, having been strongly recommended by certain physicians and institutions, the Department of Health put the services of the diphtheria antitoxin inspectors at the disposal of physicians desiring that mode of treatment. The Department, even at that time, took no stand for or against this line of treatment; since then experience has shown it to be useless.

On April 19, 1905, the Board of Health declared cerebro-spinal meningitis to be a communicable disease, and required reporting of all cases, by physicians, enforcement of quarantine, isolation of patients, exclusion of other children in the family from school, and disinfection of premises and bedding on termination of the disease. The sanitary supervision of the disease was assigned to the Division of Communicable Diseases of the Department.

Routine Procedure—Cases are reported to the Department of Health (1) by physicians and institutions on postal cards; (2) by the Diagnosis Laboratory as the result of examination of spinal fluid; (3) by death certificates; and (4) by complaints. A full history of each case (home surroundings, symptoms, outcome, etc.) is obtained by a medical inspector and entered on the accompanying card.

DEPARTMENT OF HEALTH—THE CITY OF NEW YORK

Record No. _____ Reported by _____ Address _____

Date _____ Cert. Lab. Comp. Tel. Assigned _____ to _____ Removed _____

Name _____ Address _____ Floor _____ Borough _____

Age _____ M. F. Race _____ P. H. Hdt. Apart. Flat. Ten. R. H. No. Families _____

Sanitary Conditions: Halls _____ Areaway _____

Yard _____ Street _____

Other cases C. S. M. in house or neighborhood _____

No. rooms occupied _____ Total air space _____ cu. ft. Ventilation _____ Light _____

Heat _____ Plumbing _____ No. in family _____ Adults _____ Children _____

General conditions and sanitation _____

Prevalence of dust _____

Exposure: Year B. E. Fever _____ Animal Pets _____

PATIENT'S HISTORY _____ Child, Breast, Bottle, Previous disease,(Ophth.) _____

_____

Past health as to Throat, Nose, Ear, Mouth _____

Clothing _____ Food _____ Personal cleanliness _____

School _____ Playground _____ Workplace _____

Susceptibility to colds _____ Exposure to C. S. M. _____

Exposure to over-exertion, mental or physical, or overheating _____

Exposure to cold, damp, sudden temperature changes _____

Health at onset _____ Onset, Date _____ Character _____

Stiffness Neck _____ Headache _____ Convulsions _____ Vomiting _____

Eruption, Petechiae, Herpes _____ Nasal Discharge _____ Kernig's Sign _____

Temperature _____

Blood: Leucocytes _____ Other Symptoms _____

Course _____

_____ C.

Complications, Day of Devel. _____ Eye _____ Ear _____

Pneumonia _____ Paralysis _____

Others _____

_____

(FRONT)

Diagnosis made by (*a*) Clinical Signs _____ Lumbar Puncture _____ Result _____

TREATMENT: Medical _____ Result _____

Baths, etc. _____ Result _____

Antitoxin, Horse Serum, etc. _____ Result _____

Lumbar Puncture _____ Result _____

Death on _____ day from _____

Recovery: (*a*) Complete on _____ day. (*b*) Incomplete _____

Sequelæ _____

Temp. reached normal _____ day _____

Specimens taken: Give date and where sent _____

Spinal Fluid _____ Result _____

Cultures, (Nose) (Throat) _____ Result _____

Blood _____ Result _____

Urine _____ Result _____

Opinion of Investigator as to Etiological Factors _____

_____

_____

AUTOPSY: Anatomical Findings _____

Bacteriological Findings _____

REMARKS: _____

_____

_____

_____

_____

_____

NOTE.—The Commission for the Investigation of Cerebro-Spinal Meningitis was authorized by the Board of Estimate and Apportionment and approved by the Mayor of The City of New York. It is composed of the following physicians.

W. M. Polk, M. D., Walter B. James, M. D., W. P. Northrup, M. D., Simon Flexner, M. D., R. K. Duncan, M. D., Joshua Van Cott, M. D., W. K. Draper, M. D., Hermann M. Biggs, M. D.

(BACK)

This, when completed, is filed according to address of patient. Each new case reported is compared with this record. If the patient is still at home, full instructions as to the nature of the disease are given to the family verbally and by circular, isolation and quarantine are enforced, other children of the family on the premises are excluded from school, and other tenants in the house notified of the existence of the disease. The case is kept under supervision by an inspector until its termination by death, recovery, or removal. In all fatal cases not previously reported during life, an explanation is demanded and obtained from the attending physician. On termination of the case, disinfection of the premises and bedding is ordered.

To make sure that knowledge of all cases reaches the Department, every death from meningitis (simple, tubercular, etc.) is also investigated. For results see tabulation of cases.

Circular—The following circular of information has been prepared for distribution by the medical inspectors, one being left with the family of each patient or sent to the attending physician.

Circular of Information Regarding Causation and Prevention of Cerebro-spinal Meningitis.

Cerebro-spinal Meningitis is an acute, infectious, communicable disease, caused by a specific germ, the meningococcus. This organism is frequently present in the discharges from the mouths, noses, eyes and ears of patients suffering from the disease, and is thus transmitted from person to person. The disease is always present in the vicinity of New York, sporadic cases occurring at all seasons of the year. From time to time, however, it appears in epidemic form—such epidemics having taken place in 1872, 1881, 1893, 1904 and 1905. The following table shows the number of deaths and the death rate per 10,000 from the disease since 1866:

Deaths from Cerebro-spinal Meningitis, in the Old City of New York (Manhattan and The Bronx), with Population and Death Rate per 10,000.

Year.	Population.	Number of Deaths.	Death Rate.
1866	767,979	18	.23
1867	808,489	33	.40
1868	851,137	34	.39
1869	896,034	42	.47
1870	943,300	32	.34
1871	955,921	48	.50
1872	968,710	782	8.07
1873	981,671	290	2.95
1874	1,030,607	158	1.53
1875	1,044,396	146	1.40
1876	1,075,532	127	1.18
1877	1,107,597	116	1.05
1878	1,140,617	97	.85
1879	1,174,621	108	.92
1880	1,209,196	170	1.41
1881	1,244,511	461	3.70
1882	1,280,857	238	1.86
1883	1,318,264	223	1.69
1884	1,356,764	210	1.55
1885	1,396,388	202	1.46
1886	1,437,170	223	1.55

Year.	Population.	Number of Deaths.	Death Rate.
1887	1,479,143	203	1.37
1888	1,522,341	173	1.14
1889	1,566,801	145	.93
1890	1,612,559	136	.84
1891	1,659,654	189	1.14
1892	1,708,124	230	1.35
1893	1,758,011	469	2.67
1894	1,809,353	213	1.18
1895	1,873,201	204	1.09
1896	1,906,139	178	.93
1897	1,940,553	232	1.20
1898	1,976,572	258	1.31
1899	2,014,330	287	1.42
1900	2,055,714	201	.97
1901	2,118,209	201	.94
1902	2,182,836	190	.87
1903	2,249,680	195	.86
1904	2,318,831	1,083	4.69
1905	2,390,382	1,511	6.32

Cerebro-spinal Meningitis occurs most frequently in children between the ages of one and ten years and is very fatal. Of 1,780 cases occurring in New York during 1905, 1,360 ended in death, a case fatality of 76 per cent. The meningococcus (diplococcus intracellularis meningitidis of Weichselbaum) sets up an inflammation of the membranes of the brain and spinal cord. This organism is frequently, and probably as a rule, transmitted from the sick to the well by means of the discharges from the nose and throat; it has also been found in the discharge from the eyes and ears. It is occasionally present in the noses and throats of healthy persons, who have come in close contact with the sick, or used towels or handkerchiefs soiled by them. Such persons, while not contracting the disease themselves, may transmit it to others, so that the disease greatly resembles diphtheria in its mode of spread, etc. An absolute proof that a given case is one of epidemic cerebro-spinal meningitis is furnished by the presence of meningococci

in the spinal fluid withdrawn by lumbar puncture. The operation of lumbar puncture is simple, and when properly performed quite free from danger. It is sometimes actually beneficial, by relieving pressure and the symptoms arising from this.

Outfits for forwarding specimens of fluid for examination may be obtained at any of the drug stores throughout the city which supply the various diagnostic outfits furnished by the Department of Health. Such specimens, on being forwarded to the diagnosis laboratory, Fifty-fifth street and Sixth avenue, are examined for the presence of the meningococcus and the results telephoned to the attending physician.

Prophylaxis—Patients should be strictly quarantined for at least the first two weeks of their illness. Experience has shown that the danger of infection is much less after this time. The same precautions should be observed as in a case of diphtheria. Those nursing or coming in close contact with the sick should wear gowns while in the sick room, and should take great care to disinfect their hands and persons. They should avoid close association with healthy persons, especially children. All discharges from the nose and mouth of the sick should be most carefully disinfected, and all bed linen, towels, handkerchiefs, clothing, etc., should be boiled or soaked in a disinfecting solution. The dishes, forks, spoons, etc., of the patient should be reserved for his sole use. Rubber sheeting should be used over pillows to prevent their saturation with the discharges.

Treatment—No serum or specific remedy for the disease has as yet been discovered. The provision of plenty of fresh, cool air, a carefully chosen diet, and the treatment of symptoms as they arise are all that can be done.

Notification—The Board of Health, in view of the above-mentioned facts, on April 19, 1905, declared cerebro-spinal meningitis to be a communicable disease, and required physicians to report all cases coming under their observation, to the Department of Health. Since that date the following routine procedure has been adopted:

1. The attending physician must report every case as soon as it comes under his observation. Postal cards are supplied for that purpose.

2. Every case is visited by an inspector to see that the regulations of the Department are being observed. If necessary, the case is kept under observation.

3. A history of the case is obtained from the attending physician.

4. All children in the family are excluded from school until the termination of the case by recovery, death, or removal to a hospital.

5. On termination of the case in any manner, the Department fumigates the premises with formaldehyde and removes, disinfects and returns bedding, rugs, etc.

For further information apply to J. S. Billings, Jr., M. D., Chief of Division of Communicable Diseases, Department of Health.

In conclusion, every physician and layman is urged to co-operate with the Department in the contest with this terrible disease.

THOMAS DARLINGTON, M. D.,
President.

HERMANN M. BIGGS, M. D.,
General Medical Officer.

Other Boroughs—As the authority of the Division of Communicable Diseases was extended to the other Boroughs of New York City early in 1905, the same routine procedure was introduced, and information obtained of all cases occurring from January 1, 1905. The following table gives the number of cases, deaths, death rates, case fatality and prevalence rate for each of the five boroughs and Greater New York for 1904 and 1905.

Borough.		Number of New Cases Reported.	Number of Deaths.	Number of Deaths not Previously Reported.	Death Rate per 10,000.	Case Fatality, Per Cent.	Morbidity Rate per 10,000.
Manhattan	1904	1,044	1,023	..	4.86	....	...
	1905	1,892	1,424	..	6.72	75.2	9.7
The Bronx	1904	....	80	..	3.11	....	...
	1905	118	87	4	3.18	73.7	4.3
Brooklyn	1904	....	277	..	2.09	....	...
	1905	689	455	24	3.33	66.0	5.0
Queens	1904	....	29	..	1.53	....	...
	1905	38	48	..	2.41	....	2.00
Richmond	1904	....	14	..	1.95	....	...
	1905	18	12	1	1.64	66.6	2.5
Greater New York	1904	....	1,403	..	3.59	....	..
	1905	2,755	2,026	29	5.03	73.5	6.8

It will be seen that the death rate for 1905 was twice as great in Manhattan as in any of the other boroughs, the disease being twice as prevalent in Manhattan as in Brooklyn, two and a half times as in The Bronx, and four times as in Queens and Richmond. It was likewise more fatal in Manhattan than elsewhere, The Bronx coming next in this regard.

No accurate record of reported cases could be obtained for Manhattan for 1904, and none at all for the other boroughs.

Tabulation of Cases.

As previously stated, the Department of Health has endeavored to obtain full information regarding every case of cerebro-spinal meningitis occurring in New York City during 1905. 2,755 cases were re-

ported, and information obtained in 2,180. The results have been tabulated and are as follows:

Cerebro-spinal Meningitis.

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
AGE.						
0 to 1 year	256	11	63	2	...	332
1 to 5 years	454	31	146	7	1	639
5 to 10 "	371	18	103	11	2	505
10 to 20 "	268	21	108	9	3	409
20 to 50 "	189	11	60	1	3	264
Over 50 "	24	....	7	....	....	31
Total	1,562	92	487	30	9	2,180
SEX.						
Male	840	56	249	19	6	1,170
Female	715	35	235	11	3	999
Not stated	7	2	2	....	....	11
NATIONALITY.						
United States	860	53	133	27	6	1,079
Italy	179	5	67	....	....	251
Russia	93	....	58	....	....	151
Germany	36	1	21	1	....	59
Ireland	37	1	16	....	....	54
Black race	21	....	....	1	....	22
France	4	....	1	....	....	5
England and Scotland	2	2	....	....	....	4
Miscellaneous	10	3	2	2	1	18
Not stated	326	25	186	....	....	537
DWELLING.						
Tenement	1,247	57	366	8	....	1,678
Dirty halls	443	14	144	1	....	602
Dirty area	389	12	133	2	....	536
Dirty yard	29	14	137	4	2	186
Dirty street	402	20	107	4	....	533
Total cases showing one or more of above conditions	471	24	183	11	2	691

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
Insufficient ventilation	255	5	44	....	....	304
Insufficient light	170	5	49	3	....	227
Bad plumbing	154	7	73	1	1	236
Lack of cleanliness	279	13	72	....	....	364
Dust? Yes.	284	18	174	7	2	485
Parasites? Yes	145	13	82	11	....	251
Pets? Yes	182	20	73	15	3	293
Other cases in home or neighborhood	353	16	59	5	....	433
PREVIOUS HISTORY.						
Other Diseases.						
Measles	138	4	52	....	....	194
Whooping cough	43	7	22	....	....	72
Pneumonia	35	6	12	....	....	53
Diphtheria	37	2	13	....	....	52
Scarlet fever	33	3	12	....	....	48
Typhoid	2	1	....	....	....	3
PRESENT CONDITION.						
Clothing and food unsatisfactory	60	2	13	....	....	75
Lack of personal cleanliness	59	3	2	....	....	64
Susceptibility to colds? Yes	118	2	29	9	....	158
PRESENT ILLNESS.						
Direct exposure to cerebro-spinal meningitis	103	4	40	3	....	150
Exposure to over-exertion, over-heating	72	5	12	2	3	94
Exposure to cold	73	2	1	....	3	79
Health at onset, bad	100	7	32	1	....	140
SYMPTOMS.						
Slow onset	102	5	20	....	1	128
Stiffness of neck	1,344	80	411	23	8	1,866
Vomiting	1,294	55	394	22	9	1,794
Convulsions	867	65	298	14	3	1,237
Headache	1,172	54	311	23	8	1,568
ERUPTION.						
Petechial	288	25	108	4	....	425
Herpetic	175	26	28	5	1	235

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
Nasal discharge	188	14	70	11	1	284
Kernig's sign—yes	919	55	212	8	4	1,198
Kernig's sign—no	136	17	45	....	5	203
Fever—no	2	1	10	....	....	13
Leucocytosis present	180	6	26	....	....	212
COMPLICATIONS.						
Eyes	293	38	65	3	1	400
Paralysis	116	7	32	4	1	160
Ears	89	8	21	3	....	121
Pneumonia	61	3	19	1	....	84
Heart	4	1	6	....	....	11
DIAGNOSIS MADE BY—						
LUMBAR PUNCTURE	619	23	85	1	2	730
Meningococcus present	443	15	52	1	1	512
CLINICAL SIGNS	936	69	401	29	6	1,441
DEATHS.						
Cause of Death.						
Coma and exhaustion	325	28	198	3	....	554
Convulsions	92	3	56	1	....	152
Pneumonia	25	2	12	....	....	39
Not stated	982	54	189	44	12	1,281
Died first day	109	4	35	3	....	151
" second day	132	10	45	5	....	192
" third day	114	1	39	1	1	156
" fourth day	71	2	26	1	....	100
" fifth day	74	3	21	2	....	100
" fifth to tenth day	157	5	60	7	2	231
" tenth to twentieth day	165	8	54	3	1	231
Died twentieth day and over	260	17	55	3	....	335
Not stated	342	37	120	23	8	530
RECOVERY.						
Complete	210	25	53	2	2	292
Incomplete	36	2	19	2	1	60

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
DATE OF RECOVERY.						
First week	8	1	....	....	1	10
Second week	27	3	7	....	....	37
Third week	43	2	10	....	....	55
Fourth week	56	6	10	1	....	73
Fifth week	135	14	26	....	....	175
Not stated	29	1	34	3	1	68
ANTITOXIN TREATMENT.	259	10	44	....	....	313
Died	189	6	28	....	....	223
Recovered	70	4	16	....	....	90
ANTITOXIN GIVEN—						
First day	5	....	....	....	....	5
Second day	8	....	1	....	....	9
Third day	7	....	1	....	....	8
Fourth day	4	....	2	....	....	6
Fifth day	1	....	1	....	....	2
Fifth to tenth day	7	....	1	....	....	8
Tenth to twentieth day and over	4	....	1	....	....	5
Not stated	224	10	36	....	....	270
DEATH—						
First day	7	....	....	....	....	7
Second day	13	....	1	....	....	14
Third day	12	....	1	....	....	13
Fourth day	17	....	....	....	....	17
Fifth day	14	....	2	....	....	16
Fifth to tenth day	26	....	5	....	....	31
Tenth to twentieth day	18	....	4	....	....	22
Twentieth day and over	67	4	4	....	....	75
Not stated	16	2	10	....	....	28
Horse serum was injected in	....	....	....	....	....	8—all of which died.
Injected methylene blue into spinal canal	....	....	....	....	....	1 recovered.
Fumigation and disinfection ordered	236	30	85	8	....	359

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
ORIGINAL DIAGNOSIS CEREBRO-SPINAL MENINGITIS. PROVED TO BE:						
Tubercular Meningitis.....	63	3	38	1	1	106
Simple Meningitis.....	17	5	28	....	....	50
Gastro-Enteritis.....	11	....	37	....	....	48
Pneumonia	17	2	10	....	....	29
Traumatic Meningitis.....	1	1	10	....	....	12
Septic Meningitis.....	5	....	6	....	....	11
Doubtful Cerebro-Spinal Meningitis.....	6	....	3	....	....	9
Typhoid Fever.....	2	....	1	1	....	4
Rheumatism.....	3	...	1	....	....	4
Traumatism.....	2	....	2	....	....	4
Scarlet Fever.....	4	....	....	....	....	4
Epilepsy.....	3	....	....	....	....	3
Insanity	3	....	....	....	....	3
Ptomaine Poisoning.....	2	....	....	....	....	2
Rachitis.....	....	....	2	....	....	2
Cerebral Abscess.....	1	....	1	....	....	2
Apoplexy.....	2	....	....	....	....	2
Tonsillitis	1	....	1	....	....	2
Syphilitic Meningitis.....	1	....	....	....	....	1
Cretinism.....	....	....	1	....	....	1
Uraemia.....	....	....	1	....	....	1
Septicaemia.....	1	....	....	....	....	1
Retro-Peritonal-Fibroma..	1	....	....	....	....	1
Malaria.....	1	....	....	....	....	1
Cerebral Neoplasm.....	1	....	....	....	....	1
Empyema	1	....	....	....	....	1
Post Operative Meningitis.	1	....	....	....	....	1
Cerebral Embolism.....	1	....	....	....	....	1
Acute Indigestion	1	....	....	....	....	1
Cellulitis of foot..... ...	1	....	....	....	....	1
Cerebral Oedema.	1	....	....	....	....	1
Chronic Spinal Diseases...	1	....	....	....	....	1
Scorbutus	1	....	....	....	....	1
Alcoholism.	1	....	....	....	....	1
Influenza.	1	....	....	....	....	1

	Manhattan	The Bronx.	Brooklyn.	Queens.	Richmond.	Totals.
Chicken Pox	1	....	....	....	....	1
Bronchitis	1	....	....	....	....	1
Hydrocephalus	1	....	....	....	....	1
Not stated	15	3	21	....	1	40
Total	176	14	163	2	2	357
Other forms of Meningitis investigated	....	....	....	....	....	84
Original diagnosis confirmed	....	....	....	....	....	72
"Simple" Meningitis, proving to be Cerebro-Spinal Meningitis	....	....	....	....	....	10
Tubercular Meningitis, proving to be Cerebro-Spinal Meningitis	....	....	.. .	....	....	2

Remarks.

Sex—The cases were divided fairly evenly into males (55 per cent.) and females (45 per cent.), the same holding good for all boroughs.

Age—Sixty-seven per cent. of the cases occurred in children under ten years of age, and 15 per cent. in infants under one year. Only 13 per cent. of the cases were adults, and only 1 per cent. were over fifty years of age.

Nationality—The statement that Italians are very susceptible to the disease is borne out by the fact that 15 per cent. were of that race. Excluding Americans, the Italians form 44 per cent. of the remainder. Russians came next, then Germans, and then Irish, Negroes constituted only one per cent., and twenty-one of the twenty-two negroes lived in Manhattan.

Dwelling—Seventy-six per cent. of the patients lived in tenement houses, showing the social status of the majority of the cases.

In 533 instances (24 per cent.) it was found that the halls, area ways, or yards (one or all), or the streets in front of the houses, were dirty and unsanitary. In 13 per cent. the light was bad, in 10 per cent. the ventilation was insufficient, and the plumbing unsanitary. In 16 per cent. the rooms were dirty, and ill kept, and dusty. A history of the

existence of parasites (fleas, etc.) was obtained in 11 per cent., and in 13 per cent. animal pets were kept.

A history of other cases of cerebro-spinal meningitis in the same house or neighborhood was obtained in 19 per cent.

Previous History—The commonest preceding disease was, of course, measles, followed by whooping-cough, diphtheria and pneumonia in the order named.

Present Condition—Clothing and food were unsatisfactory in only 3 per cent., and there was a lack of personal cleanliness in 3 per cent. Seven per cent. gave a history of susceptibility to colds.

Present Illness—In only 6 per cent. of the cases had there been any direct exposure to other cases of cerebro-spinal meningitis, and in only a small number was there evidence of direct transmission of the disease.

Drs. Bolduan and Goodwin, of the Department of Health (Medical News, December 30, 1905), have investigated these multiple cases, of which they claim to have found 88 instances, including in all 200 cases. But less than a hundred instances of possible transmission out of over 1,500 cases is not very weighty evidence, and in all but a few, direct transmission was only possible—not probable. In only 4 per cent. was there a history of exposure to over-exertion, and in 3 per cent. of exposure to cold.

In the majority of cases, the patients were well just previous to the onset of the disease—only 6 per cent. being in bad health.

Symptoms—In all but 5 per cent. the onset was sudden. Stiffness of the neck was the commonest symptom, being present in 85 per cent. of the cases—closely following it came vomiting, headache and convulsions. An eruption was present in 30 per cent of the cases, being petechial in 19 per cent. and herpetic in 11 per cent. Nasal discharge was noted in only 13 per cent. If the disease is always transmitted by the discharges, it would seem that nasal discharge should be more common. Kernig's sign, a diagnostic sign of great value, was absent in only 15 per cent. of the cases. Fever and leucocytosis were practically always present.

Complications—The eyes were most frequently involved—next came paralysis of other muscles, then otitis.

Diagnosis—In 33 per cent. of the cases lumbar puncture was performed to confirm the diagnosis, and in 82 per cent. meningococci were found. In the remainder the diagnosis was made by clinical signs alone. Lumbar puncture was performed seven times in Manhattan to once in Brooklyn.

Cause of Death—This was usually from coma and exhaustion. About 7 per cent. died on the first day, less than 34 per cent. during the first five days, and 39 per cent. after ten days. Of the recovered cases, 84 per cent. recovered completely. The majority of the cases did not recover until after the 4th week, but in ten cases (3 per cent.) recovery was stated to have taken place during the first week.

Antitoxin Cases—Diphtheria antitoxin was used in 313 cases, of which 223 died, a case fatality of 71 per cent. Careful study of the individual cases failed to show any ground for believing that the antitoxin had any beneficial effect whatsoever.

In most of the recovered cases only small doses were given; and late in the disease, and in only two was more than one dose given. Whereas, in several of the fatal cases very large amounts of antitoxin were used. In one case 15,000 units every other day for two weeks—a total of 115,000 units. In other cases, 60,000, 88,000, 32,000 units were given; and in one case 24,000 units were given on the first day of the disease. One thing is shown clearly,—the harmlessness of diphtheria antitoxin.

Mistaken Diagnosis—In 357 instances investigation showed the original diagnosis of cerebro-spinal meningitis to have been mistaken. One-third of the cases proved to be tubercular meningitis. The other conditions most frequently mistaken for cerebro-spinal meningitis were simple meningitis, gastro-enteritis and pneumonia. Of 84 instances of meningitis supposed not to be the epidemic cerebro-spinal form, 12 (or 14 per cent.) proved to be cerebro-spinal meningitis.

Concluding Remarks—It will be seen by the above that clinical investigation has so far thrown very little light upon the mode of transmission of the disease, nor has any effectual mode of treatment been discovered. It is to the laboratory workers that we must look for assistance, and already new and valuable facts have been discovered

regarding the meningococcus, its habitat, mode of transmission, viability, methods of identification, etc.

A very important point that has been brought out is that the disease is, in all probability, much more infectious during the first two weeks of its course. Guided by this, the Department has enforced quarantine for at least the first two weeks, in all cases remaining at their homes, the medical inspectors keeping the cases under observation, giving all necessary instructions, and ordering disinfection of the rooms and bedding on termination of the case.

PNEUMONIA.

Since 1870 there has been a steady increase in the number of deaths from pneumonia in The City of New York. This increase has been relative as well as absolute—*i. e.*, it has advanced more rapidly than the increase of population, as shown by the fact that the death rate from the disease has risen steadily. During the same thirty-five years—*i. e.*, from 1870 to date—the general death rate has fallen steadily. The same is true of the tuberculosis death rate, which fell below the pneumonia death rate in 1891, where it has remained ever since with the single exception of 1897, in which year the pneumonia death rate was lower than it had been since 1881. Pneumonia has taken the place of tuberculosis as the chief cause of death.

The following table (1) gives the deaths from pneumonia in the Boroughs of Manhattan and Bronx, with population and death rate per 10,000, from 1870 to 1905.

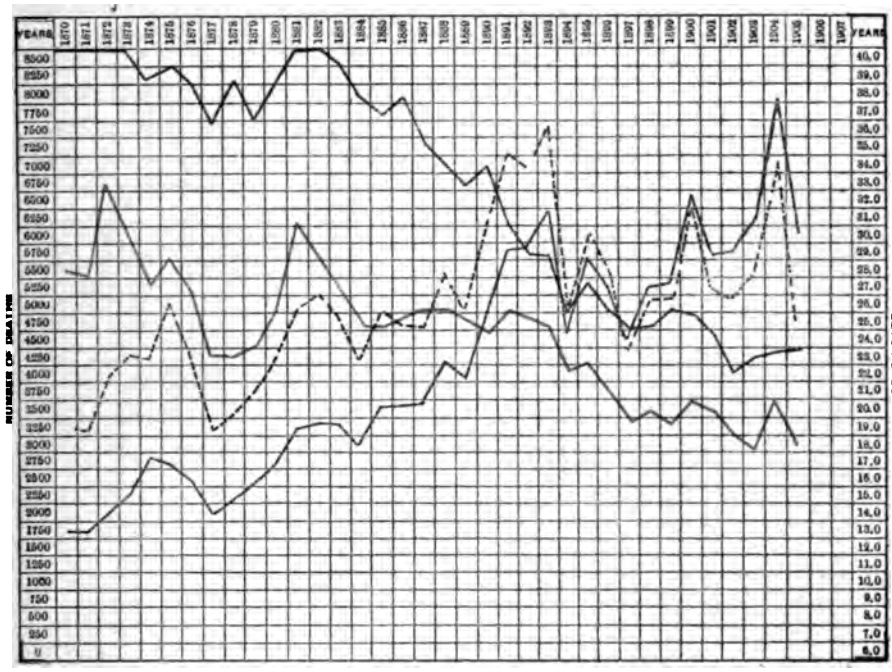
TABLE I.

Deaths from Pneumonia in the Old City of New York (Manhattan and The Bronx), with Populations and Death Rates Per 10,000.

Year.	Population.	Number of Deaths.	Death Rate per 10,000.	Year.	Population.	Number of Deaths.	Death Rate per 10,000.
1870	943,300	1,836	19.5	1889	1,566,801	4,075	26.0
1871	955,921	1,834	19.2	1890	1,612,559	4,989	30.9
1872	968,710	2,150	22.2	1891	1,659,654	5,818	35.1
1873	981,671	2,328	23.7	1892	1,708,124	5,841	34.2
1874	1,030,607	2,398	23.3	1893	1,758,010	6,487	36.9
1875	1,044,396	2,802	26.8	1894	1,809,353	4,725	26.1
1876	1,075,532	2,542	23.6	1895	1,873,201	5,751	30.7
1877	1,107,597	2,148	19.4	1896	1,906,139	5,383	28.2
1878	1,140,617	2,288	20.1	1897	1,940,553	4,621	23.8
1879	1,174,621	2,554	21.7	1898	1,976,572	5,301	26.8
1880	1,209,196	2,822	23.3	1899	2,014,330	5,418	26.9
1881	1,244,511	3,261	26.2	1900	2,055,714	6,747	32.8
1882	1,280,857	3,472	27.1	1901	2,118,209	5,792	27.2
1883	1,318,264	3,409	25.9	1902	2,182,836	5,841	26.7
1884	1,356,764	3,159	23.3	1903	2,249,680	6,308	28.0
1885	1,396,388	3,650	26.1	1904	2,318,831	8,029	34.6
1886	1,437,170	3,656	25.4	1905	2,390,382	6,139	25.6
1887	1,479,143	3,707	25.1	1906	.....	.....	....
1888	1,522,341	4,288	28.2	1907	.....	.....	....

The same facts are represented in a diagrammatic form in Table II.

Chart Showing Number of Deaths from Pneumonia in Old City of New York and Death Rate Per 10,000 *of Population.*



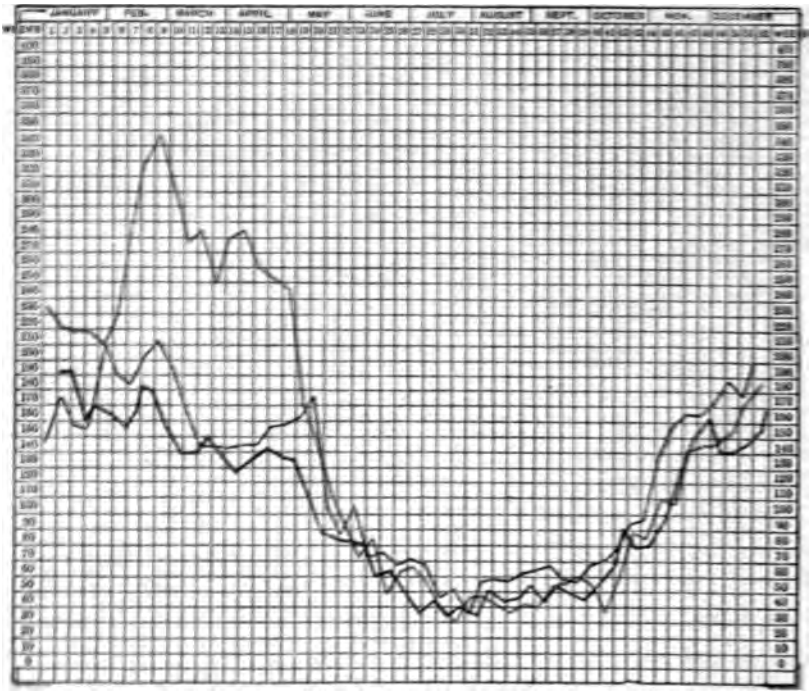
Black Straight Line—Number pneumonia deaths.
Black Broken Line—Pneumonia death rate.
Red Line—General death rate.
Blue Line—Tuberculosis death rate.

It shows well the steady upward trend of the deaths and death rate from pneumonia, also the sharp rises taking place in 1875, 1882, 1891 to 1893, 1895 (the influenza year), 1899 and 1904. The general death rate is shown in red; the influence of the pneumonia deaths upon its curve can be made out, especially where the pneumonia curve rises sharply. The tuberculosis death rate is shown in blue; it has fallen steadily ever since 1881 until at present, as previously stated, it is well under that of pneumonia. In common with the general death rate and that of pneumonia, the tuberculosis death rate rose sharply in 1893—the influenza year. The figures and chart then show that while the

total number of deaths and the deaths from tuberculosis are gradually diminishing year by year, those from pneumonia on the other hand are steadily increasing.

In Table III. are shown the number of deaths from pneumonia which occurred in New York City each week for the years 1903, 1904 and 1905.

Chart Showing Number of Deaths from Pneumonia (Excluding Broncho-pneumonia) in the Greater City of New York, by Weeks, for the Years 1903, 1904 and 1905.



Straight Line, 1903.
Broken Line, 1904—Red.
Dotted Line, 1905—Blue.

It will be seen that during June, July, August and September the number of deaths remains at a low level—from thirty to sixty a week. Early in October it begins to rise until by January it reaches its maximum—from 160 to 200. It remains at about this level until February, when it begins to fall gradually until May, when a rapid decrease takes place. In 1904, the maximum number of deaths per week (350) was not reached until the end of February.

APPOINTMENT OF COMMISSION.

In August, 1904, the Board of Health appointed a Medical Commission to investigate the causes of the increasing prevalence and fatality of the acute respiratory diseases in New York City. The commission was composed of the following:

Dr. Edward G. Janeway, of New York, President.
Dr. William Osler, of Baltimore, Vice-President.
Dr. T. Mitchell Prudden, of New York, Secretary.
Dr. Theobald Smith, of Boston.
Dr. William H. Welch, of Baltimore.
Dr. Frank Billings, of Chicago.
Dr. John H. Musser, of Philadelphia.
Dr. L. Emmett Holt, of New York.
Dr. Francis P. Kinnicutt, of New York.

Pneumonia was the disease to be first studied, the investigations being carried out along two main lines—bacteriological and clinical (a report of the bacteriological work performed has been published under the title of "Studies on the Pneumococcus").

As a preliminary step toward attacking the question from the clinical side it was determined to obtain full histories of a large number of hospital cases of pneumonia, in the hope that in this way some light might be thrown on the causation and mode of spread of the disease. Arrangements were made with all the hospitals of New York City for them to report all cases of pneumonia to the Department of Health. The following history card was drawn up and a corps of inspectors organized, whose duty it was to obtain the desired information. The clinical history was obtained from the hospital physicians, after which the home of the patient was visited to secure the further information desired.

DEPARTMENT OF HEALTH—THE CITY OF NEW YORK

COMMISSION FOR THE INVESTIGATION OF ACUTE RESPIRATORY DISEASES

Record No._____ PNEUMONIA CASES (See special note over)

City_____ Hosp._____ P. H., Hot., A., P., Ten., L. H., Bd. H. Investigator_____

Name_____ Add._____ Date seen_____

ETIOLOGY: Age_____ M. F. Race_____ M. S. W. Prev. attack P._____ Date_____

Preced. dis._____ Pres. health as to mouth, phar., bronch., middle ear_____

Expos. (sudden temp. changes, as bakers, etc.)_____

Family Hist. (pneumococ. infect. in past years)_____

Expos. to damp., fatigue, cold, etc.; if so, when_____

Expos. to P., laryn., bronch., colds, influ., any pneumococ. infect. in fam. or asso._____

_____ Dis's prev. in commun.: (a) P._____ (b) Influ._____

(c) Other acute resp. dis._____ Habits as to

(1) Alcohol_____ tobacco smok._____ chew._____

(2) Places of amus._____ (3) Methods of trans. most used,

(e. g., Trol. C., R. R., etc., walk) _____ Clothing_____

Occup. (dusty, delet. gas or fumes, factory-worker)_____

Injury to chest_____ Sanitary sur._____

Air space_____ No. in family_____

Ua. temp. of apart. _____ Heat (gas, oil-stove, furn., coal stove, steam, open fire) _____

Vent._____ Light_____

TYPE OF DISEASE: 1. Frank prim. lobar P. _____ what lobes_____

(day consol. comp.)_____ Max. temp._____ Duration_____ Severity_____

2. Acute prim. broncho-P._____ 3. Secondary P. (if so, to what dis.) _____ 4. Surg. P. (i.e., P. oc. after surg. op. or inj.)_____

_____ 5. Hosp. infect. (P. oc. as intercur. dis. in hosp. pat.)_____

_____ 6. Term. P._____

COMPLICATIONS: Day of develop._____ Other pneumococ. infect.)_____

1. Influen._____ 2. Acute nephr._____ 3. Pleur._____

4. Endocard._____ 5. Pericard._____ 6. Periton._____

7. Menin._____ 8._____

RESULT: 1. Death on _____ day. 2. Recov. 3. Crisis and day_____

Resolution (a) rap., slow,_____ (b) (compl., part.)_____

(FRONT)

SPUTUM: 1. Amount_____ 2. Character_____

3. Bacteriological examination _____

AUTOPSY: 1. Anatomical findings_____

2. Bacteriological findings_____

Opinion of investigator as to etiological factors_____

NOTE.—Special inquiry should be made as to exposure (cold winds on street corners, etc.), clothing, alcohol, fatigue, character of work-rooms and their ventilation, sickness among workmen, susceptibility to colds, prevalence of pneumonia, character of food, general health when taken ill, tuberculosis in family; if anæsthetic used, what one. Severity of disease.

SPECIMEN TAKEN: Spat._____ Saliva_____ Mouth or throat swab_____

SUBSEQUENT HISTORY: (15 days later.) Any pneum. occ. infect. or other comp. develop._____

NOTE.—The Commission for the Investigation of Acute Respiratory Diseases was authorized by the Board of Estimate and Apportionment and approved by the Mayor of The City of New York. It is composed of the following physicians: Edward G. Janeway, M.D., William Osler, M.D., William H. Welch, M.D., T. Mitchell Prudden, M.D., Frank Billings, M.D., John H. Musser, M.D., Theobald Smith, M.D., L. Emmett Holt, M.D., and Hermann M. Biggs, M.D.

(BACK)

Arrangements were also made by members of the Commission to secure similar histories of cases of pneumonia from several of the large hospitals in Chicago and Philadelphia. This procedure was carried out during the winter of 1904-1905. From New York hospitals there were reported 974 cases, from Philadelphia 274, and from Chicago 99. All data given on the history cards have been tabulated, with the following result:

PNEUMONIA.

New York, Philadelphia and Chicago Hospital Cases.

	New York.	Philadelphia.	Chicago.	Total.
Total cases	974	274	99	1,347
Deaths	301	71	21	393
Case fatality	30.9 %	25.9 %	21.2 %	29.1 %
SEX.				
Male	675	209	87	971
Female	299	65	12	376
AGE.				
0 to 5 years	147	58	. ..	205
5 to 15 years	73	23	1	97
15 to 20 years	61	16	9	86
20 to 35 years	295	54	36	385
35 to 50 years	263	58	41	362
Over 50 years	113	44	11	168
RACE.				
United States, white	465	111	20	596
Irish	136	21	....	157
United States, colored	58	32	13	103
German	64	12	....	76
Italian	52	22	2	76
Russian	32	7	....	39
English	19	1	1	21
Hebrew	1	13	1	15
Sweden	11	....	1	12
Austria	10	....	....	10
Scotch	8	1	....	9
Hungarian	9	....	....	9

	New York.	Philadelphia.	Chicago.	Total.
West Indies	7	....	....	7
Greek	5	....	1	6
Dane	4	1	....	5
Pole	3	1	....	4
Swiss	3	....	....	3
French	3	....	....	3
Spanish	2	....	....	2
Hawaiian	....	1	....	1
Brazil	1	....	....	1
Porto Rico	1	....	....	1
Roumanian	1	....	....	1
Finn	1	....	....	1
Welsh	1	....	....	1
Norwegian	1	....	....	1
Condition.				
Single	423	87	61	571
Married	174	26	20	220
Widowed	69	8	15	92
Occupation.				
Exposed out of doors	213	2	9	224
Sudden temperature changes	69	4	8	81
Dusty	29	17	5	51
Dwelling.				
Tenement	681	12	....	693
Private house	19	117	2	138
Lodging-house	59	17	14	90
Boarding-house	42	20	13	75
Furnished room	45	....	1	46
Hotel	10	2	1	13
Home	1	1	3	5
Ship	3	2	....	5
Hospital	2	1	1	4
Sanitary Surrounding.				
Good	155	51	15	221
Poor	125	32	32	189
Fair	118	16	33	167

	New York.	Philadelphia.	Chicago.	Total.
AIR-SPACE.				
Insufficient	87	26	28	141
TEMPERATURE OF APARTMENT.				
Overheated	80	18	6	104
Underheated	73	22	14	109
VENTILATION.				
Insufficient	150	34	31	215
LIGHT.				
Insufficient	120	....	14	134
METHODS OF HEATING.				
Coal stove	302	128	55	485
Steam	72	2	13	87
Furnace	39	24	3	66
Gas stove	13	....	1	14
Oil stove	5	1	....	6
Hot water	....	....	1	1
Open fire	1	1	....	2
PLACES OF AMUSEMENT.				
Theatres	53	7	7	67
Saloons	18	....	12	30
Clubs	10	1	3	14
Ball Rooms	7	1	....	8
METHODS OF TRANSPORTATION.				
Walking	335	77	55	467
Surface cars	130	50	19	199
Driving	52	2	2	56
Elevated railroad	37	....	4	41
Subway	13	....	....	13
Railroad	8	....	....	8
Boat	4	....	2	6
Automobile	4	....	....	4
CLOTHING.				
Overclothed	47	....	12	59
Underclothed	21	3	4	28

	New York.	Philadelphia.	Chicago.	Total.
Alcohol.				
Excessive use of alcohol	143	45	32	220
Tobacco.				
Excessive use of tobacco	41	51	16	108
Prevalent Diseases.				
Pneumonia	662	4	70	736
Influenza	589	....	64	653
Family History.				
Pneumonia	60	21	16	97
Tuberculosis	34	4	8	46
Previous Health.				
Inflamed state of pharynx	46	12	11	69
" " bronchi	8	18	12	38
" " middle ear	7	3	2	12
" " mouth	2	7	1	10
Previous Attack of Pneumonia.				
0 to 5 years	19	1	....	20
5 to 20 "	25	2	2	29
20 to 35 "	46	4	9	59
35 to 50 "	18	1	4	23
Over 50 "	7	....	3	10
Exposure.				
Sudden temperature change	126	26	26	178
Dampness, fatigue, cold	365	35	49	449
Exposure to pneumonia	29	1	3	33
Exposure to bronchitis	....	2	....	2
Injury to chest	2	3	2	7
Preceding Diseases.				
Measles	214	7	2	223
Rheumatism	84	4	1	89
Malaria	74	2	7	83
Colds	61	8	4	73
Scarlet fever	65	5	3	73

	New York.	Philadelphia.	Chicago.	Total.
Pertussis	52	8	....	60
Typhoid fever	33	4	12	49
Bronchitis	35	4	2	41
Diphtheria	36	1	1	38
Influenza	29	4	4	37
Syphilis	31	2	2	35
Varicella	28	1	....	29
Pleurisy	20	4	3	27
Coughs	21	3	2	26
Mumps	20	4	....	24
Alcoholism	13	5	....	18
Small-pox	15	....	....	15
Nephritis	9	3	....	12
Erysipelas	12	....	....	12
Pulmonary tuberculosis	6	3	....	9
Tonsillitis	9	....	....	9
Nervous diseases	9	....	....	9
Asthma	....	1	6	7
Endocarditis	5	2	....	7
Jaundice	4	....	2	6
Appendicitis	6	....	....	6
Otitis	4	....	....	4
Premature delivery	4	....	....	4
Enteritis	2	1	....	3
Inflammation of liver	2	1	....	3
Nervous prostration	2	1	....	3
Myocarditis	1	1	....	2
Caries	1	1	....	2
Quinsy	2	....	....	2
Anæmia	2	....	....	2
Mastoid diseases	2	....	....	2
Cerebro-spinal meningitis	2	....	....	2
Lead colic	2	....	....	2
Tetany	....	1	....	1
Delirium tremens	....	1	....	1
Senility	....	1	....	1
Rachitis	1	....	....	1
Graves disease	1	....	....	1

	New York.	Philadelphia.	Chicago.	Total.
Myalgia	1	....	....	1
Emphysema	1	....	....	1
Tubercular meningitis	1	....	....	1
Apoplexy	1	....	....	1
Dengue	1	....	....	1
Morphinism	1	....	....	1
Endometritis, etc	1	....	....	1
TYPE OF DISEASE.				
Lobar pneumonia	752	187	92	1.031
Ac. prim. bron. pneumonia	157	44	1	202
Secondary pneumonia	64	6	4	74
Surgical pneumonia	14	....	2	16
Terminal pneumonia	....	....	....	1
Hospital infection	2	....	1	3
LOBES INVOLVED.				
Lower left	194	44	36	274
Lower right	154	60	16	230
Upper right	105	51	8	164
Both lower	71	30	3	104
Entire right side	69	18	13	100
Upper left	62	13	4	79
Entire left side	43	8	6	57
Left upper and right lower	46	2	....	48
Both lungs	32	6	....	38
Right, middle and lower	23	3	5	31
Entire right and half left	19	....	3	22
Right, upper and middle	18	4	....	22
Entire left and half of right	18	1	....	19
Both upper	16	....	1	17
Right, upper and left lower	8	1	1	10
Middle right	8	1	1	10
Right, upper and middle and left lower	4	1	....	5
Entire post. part both legs	2	1	1	4
Right, upper and part lesion, right	....	1	....	1
COMPLICATIONS.				
Pleurisy, dry	38	7	7	52
" with effusion	27	4	5	36

	New York.	Philadelphia.	Chicago.	Total.
Empyema	25	3	4	32
Edema of lungs	25	1	....	26
Pericarditis	13	3	2	18
Acute nephritis	6	11	1	18
Meningitis	8	4	1	13
Tuberculosis	11	1	....	12
Obstructive jaundice	9	1	....	10
Endocarditis	5	5	....	10
Otitis media	3	1	....	4
Typhoid	1	2	1	4
Measles	4	....	....	4
Delirium tremens	2	....	1	3
Bronchitis	1	2	....	3
Peritonitis	....	....	2	2
Thrombosis	1	1	....	2
Pertussis	1	1	....	2
Joint sepsis	1	....	1	2
Miscarriage	2	....	....	2
Enteritis	1	....	....	1
Influenza	1	....	....	1
Uremia	....	1	....	1
Sciatica	....	1	....	1
Convulsion	....	1	....	1
Laryngismus Stridulus	....	1	....	1
Hemiplegia	1	....	....	1
Anasarca	1	....	....	1
Varicella	1	....	....	1
Leukemia	1	....	....	1
Melancholia	1	....	....	1
Mastoiditis	1	....	....	1
Erysipelas	1	....	....	1
DAY CONSOLIDATION COMPLETE.				
First day	6	....	1	7
Second day	41	....	17	58
Third day	44	3	16	63
Fourth day	49	9	23	81
Fifth day	63	12	9	84
Over five days	172	31	11	214

	New York.	Philadelphia.	Chicago.	Total.
Crisis.				
1 to 5 days	48	3	21	72
6 days	38	9	3	50
7 days	79	13	6	98
8 days	63	9	7	79
9 days	45	13	9	67
10 days	25	12	3	40
10 to 15 days	63	4	3	70
15 to 25 days	27	....	1	28
Over 25 days	2	1	....	3
Lysis	202	10	11	223
Duration.				
One to five days	56	11	14	81
Five to ten days	196	61	53	310
Ten to twenty days	361	36	23	420
Over twenty days	121	32	1	154
Severity.				
Marked	514	39	34	587
Moderate	300	51	49	400
Mild	63	13	11	87
Resolution.				
Rapid	364	48	47	459
Slow	242	33	20	295
Complete	471	49	60	580
Partial	97	11	4	112
Recovery.				
Complete	530	183	73	786
Partial	49	9	5	63
Sputum.				
Amount—None	179	11	7	197
Scanty	264	16	18	298
Moderate	45	10	18	73
Copious	133	16	29	178

	New York.	Philadelphia.	Chicago.	Total.
CHARACTER.				
Rusty	227	32	47	306
Prune juice	35	4	1	40
Muco-purulent	58	5	7	70
Diplococcus found	69	86	39	194
Diplococcus not found	11	....	1	12

REMARKS.

The case fatality of the cases occurring in New York was five per cent. higher than in Philadelphia, and 9.7 per cent. higher than in Chicago. The total case fatality (29.1 per cent.) is not excessive for hospital cases.

Sex—The majority of the cases (73 per cent.) were in males—to be accounted for by their more exposed life, that they go to hospitals more readily, etc. The proportion was highest in New York, and lowest in Chicago.

Age—More cases fell in the age-group 20 to 35 years than any other, closely followed by that from 35 to 50 years. Fewest cases occurred between 15 and 20 years (6%). Fifteen per cent. were under 5 years, and 12 per cent. over 50 years. The number of Philadelphia cases between the ages of 20 and 50 was remarkably small, while in Chicago only one case was under 15 years (possibly no children were admitted to the hospitals).

Race—Forty-four per cent. were white natives of the United States. Next in order came the Irish (11%), the Negroes (7%), Germans (5%). Counting all Russians as Jews, their case fatality was 4 per cent. The percentage of native born in Chicago was very low. The following table shows the grouping of 924 New York cases according to sex, race and age:

Table Showing Cases, Deaths and Case Fatality of Pneumonia (New York), According to Race, Age and Sex.

	0 to 15 Years.			15 to 50 Years.			Over 50 Years.			Total.		
	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.
United States—												
Male	60	8	..	220	44	..	40	16	..	320	68	..
Female	44	16	..	96	12	..	20	20	..	160	48	..
Total	104	24	23.	316	56	17.	60	36	60.	480	116	24.
German—												
Male	..	..	..	44	12	..	8	4	..	52	16	..
Female	4	..	..	12	..	..	16	12	..	32	12	..
Total	4	..	..	56	12	21.	24	16	66.	84	28	33.
Irish—												
Male	..	..	..	72	20	..	28	4	..	100	24	..
Female	..	..	..	20	4	..	16	8	..	36	12	..
Total	..	..	..	92	24	26.	44	12	27.	136	36	26.
Others—												
Male	8	4	..	152	24	..	16	8	..	176	36	..
Female	4	..	..	44	8	..	..	..	..	48	8	..
Total	12	4	33.	196	32	4.	16	8	50.	224	44	19.
Total male	68	12	..	488	100	..	92	32	..	648	144	22.
Total female	52	16	..	172	24	..	52	40	..	276	80	28.
Total	120	28	23.	660	124	18.	144	72	50.	924	224	20.

Condition—Two-thirds of the patients were unmarried. Of the remainder, 29 per cent. were widowed.

Occupation—Only about 16 per cent. followed out-door occupations, (chiefly New Yorkers); in only 4 per cent. was there exposure to dust or other sources of irritation.

Dwelling—Over half the patients lived in tenements, showing the class from which the cases were drawn. Most of the Philadelphia cases lived in private houses. The proportion of lodging and boarding house cases was high in Philadelphia and Chicago.

Sanitary Conditions—In only 16 per cent were the sanitary conditions described as bad—Philadelphia leading in this regard. In 10 per cent. the air space was said to be insufficient, in 15 per cent. the ventilation was bad, and in 9 per cent. the light was unsatisfactory. The commonest methods of heating was by means of coal stoves (36 per cent.). Gas stoves were used in only 1 per cent. In 70 per cent. the premises were overheated, and underheated in the same per cent.

Amusements, Transportation, etc.—Theatres were the common places of amusement resorted to, followed by saloons (in New York and Philadelphia). Most of the patients went about on foot; of the remainder most used the surface cars.

Clothing—In only 6 per cent. was there a history of too much or too little clothing being worn.

Alcohol and Tobacco—Sixteen per cent. of the patients gave a history of excessive use of alcohol (highest in Chicago), and 7 per cent. of tobacco.

Prevalent Diseases—Pneumonia and influenza were prevalent in New York and Chicago.

Family History—In only a small number of cases was any family history of pneumonia or tuberculosis obtainable.

Previous Health—In less than 10 per cent. of the cases could any history of preceding inflammation of the mucous membranes be obtained. In only twenty instances (1 per cent.) was there a history of a preceding attack of pneumonia within five years. Ten per cent. of the cases had had pneumonia before, however. A history of exposure

to sudden temperature changes was found in 12 per cent., and to cold, damp, etc., in 32 per cent. Less than 3 per cent. had been exposed to another case of pneumonia.

A history of antecedent injury to the chest was obtained in only seven cases, showing how rarely traumatism and pneumonia are causally related.

Preceding Diseases—Measles, rheumatism and malaria were the three diseases from which the patients had most commonly suffered. The first is easily explained, but not so the other two. Typhoid fever was relatively frequent, also diphtheria. The New York patients were the ones that had suffered oftenest from measles, rheumatism, syphilis, chicken-pox, etc.

Type of Disease—Primary lobar pneumonia occurred in 71 per cent. of the cases, acute broncho-pneumonia in 15 per cent., and secondary pneumonia in 15 per cent., the latter following such conditions as alcoholism, tuberculosis, typhoid fever and erysipelas. Surgical pneumonia occurred in about 1 per cent., and hospital infection (direct transmission) in only 0.2 per cent.

Lung Involvement—The left lower lobe was the favorite site of the disease (20 per cent.); it was followed closely by the right lower lobe, and then, at longer intervals by the right upper lobe, both lower lobes, entire right lung, and left upper lobe in the order named. The bases of the lungs were affected three times as often as the upper lobes.

Complications—Complications occurred in 18 per cent. of the cases pleurisy, either dry or with effusion, being of most frequent occurrence, —(dry 3 per cent.; with effusion 2 per cent.). Empyema occurred in 2 per cent. Other complications were pulmonary oedema, nephritis, pericarditis and meningitis.

Consolidation—In most cases (58 per cent.) consolidation was not complete until after the fourth day. In only 12 per cent. was it complete by the end of the second day.

Crisis—The crisis occurred oftener on the 7th day than on any other. In 14 per cent. it occurred during the first five days, in 80 per cent. during the first ten days, and in 6 per cent. only after fifteen days.

Lysis—This occurred in 16 per cent. of the cases.

Duration—About three-quarters of the cases lasted between five and twenty days; 8 per cent. terminated in less than 5 days, while 15 per cent. lasted over twenty days.

Severity—More than half the cases were classed as severe, and only 8 per cent. as mild.

Resolution—In two-thirds of the cases resolution of the consolidation was rapid, and in five-sixths it was complete. Of the recovered cases, over 90 per cent. got entirely well.

Sputum—In fully one-quarter of the cases there was no expectoration whatever. In the other cases, the sputum was rusty in 15 per cent., and "prune juice" in 16 per cent. Pneumococci were found in 194 out of 206 specimens.

Conclusion—On reviewing the above findings it will be seen that nothing new has been added to our knowledge concerning pneumonia. There is very little evidence that the disease is often directly transmitted from person to person, or that unsanitary conditions, or inflamed states of the mucous membranes, have much influence. Persons following exposed occupations, addicted to alcohol, and of certain races, are more subject to the disease, but all this has been known for years. To avoid contraction of the disease, attention must be paid to the avoidance of exposure and "catching cold," while as to treatment, we are still waiting for the production of a curative serum.

SECTION I.—COMMUNICABLE DISEASES.

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Population, 1903	2,007,892	241,788	1,281,686	179,501	70,556	3,781,423
Population, 1904	2,061,907	256,924	1,321,405	189,046	71,743	3,901,023
Population, 1905	2,117,375	273,007	1,362,352	199,099	72,947	4,024,780

	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
General death rate per 10,000	193.0	218.2	187.4	217.6	202.5	186.0	175.7	156.8	160.3	195.0	190.4	203.4	183.1
(a) Tuberculosis.													
Total number of new cases reported	10,334	12,579	14,081	943	955	4,539	4,897	444	504	218	394	18,723	20,831
Total number of duplicate cases reported	4,698	8,199	9,106	....	358	1,522	2,026	....	19	....	133	9,721	11,642
Number of cases reported by physicians and by sputum	....	....	4,621	....	375	1,435	1,497	....	108	....	85	....	6,686
Number of cases reported by institutions	....	....	6,492	....	235	1,258	1,189	....	....	....	280	....	8,196
Number of deaths from tuberculosis	3,971	4,114	4,237	1,397	1,441	2,634	2,420	262	278	105	159	8,512	8,535
Number of deaths not previously reported	959	998	867	....	118	631	614	....	74	....	41	....	1,714
Death rate—pulmonary tuberculosis	19.77	19.95	20.01	54.37	52.78	19.93	17.76	13.85	13.96	14.63	21.70	21.81	21.21
Manhattan cases—died in Bronx	....	....	916	....	....	....	....	....	....	....	....	....	....
Corrected death rate	....	....	24.33	....	19.23	....	....	....	....	....	....	....	....
Number of tuberculosis inspections	17,542	27,964	31,005	....	2,724	....	6,733	....	375	....	264	....	41,101
Number of living cases visited by inspectors	8,503	6,724	6,945	....	242	....	1,683	....	104	....	70	....	9,044
Number of dead cases visited by inspectors	4,011	3,919	3,638	....	353	....	1,690	....	214	....	47	....	5,942
Number of inspections by nurses	5,028	17,321	20,422	....	2,129	....	3,360	....	57	....	147	....	26,115

Number of cases not found at reported address	....	....	1,971	....	103	....	390	....	20	....	24	....	2,508
Number of cases reported without a "home" address	....	....	274	....	33	....	11	....	....	....	3	....	321
Number of original complaints (renovations)	1,338	803	358	....	255	617	580	....	26	....	....	....	1,219
Number of premises renovated voluntarily	....	....	705	....	21	....	342	....	26	....	1	....	1,095
Number of fumigations ordered	1,336	4,093	4,781	....	350	....	1,962	....	381	....	104	....	7,578
Number of cases forcibly removed to Riverside	....	35	17	....	2	....	13	....	2	....	1	....	35
Number of cases referred to charitable organizations	226	381	841	....	....	....	23	....	....	....	10	....	874
Number of cases referred to hospitals	193	416	1,352	....	24	....	194	....	1	....	8	....	1,579
Number of patients supplied with milk	....	....	518	....	....	....	....	....	....	....	....	....	518
Number of patients supplied with eggs	....	....	642	....	....	....	....	....	....	....	....	....	642
(b) Typhoid Fever.													
Number of new cases reported	2,342	1,916	1,867	220	327	1,050	1,913	133	146	93	73	3,412	4,326
Number of deaths from typhoid fever	317	277	273	32	37	303	297	34	31	15	11	661	649
Number of deaths not previously reported	....	....	51	....	1	....	9	....	3	....	....	....	64
Death rate, typhoid fever	1.57	1.38	1.28	1.24	1.35	2.29	2.18	1.79	1.55	2.09	1.50	1.74	1.61
Case fatality, per cent.	13.5%	15.5%	14.6%	14.5%	11.3%	28.8%	15.5%	25.5%	21.2%	16.1%	15.%	16.4%	15.%
Number of typhoid inspections	365	3,248	1,400	....	....	....	1,861	....	....	....	4	....	3,265
Number of typhoid fumigations	....	....	50	....	6	....	20	....	4	....	1	....	81
(c) Cerebro-Spinal Meningitis.													
Number of new cases reported	....	1,044	1,892	....	118	....	689	....	38	....	18	....	2,755
Number of deaths from cerebro-spinal meningitis	....	1,003	1,424	80	87	277	455	29	48	14	12	1,403	2,026
Number of deaths not previously reported	....	....	....	....	4	....	24	....	....	....	1	....	29
Death rate, cerebro-spinal meningitis	....	4.86	6.72	3.11	3.18	2.09	3.33	1.53	2.41	1.95	1.64	3.59	5.03
Case fatality, per cent.	....	....	75.2%	....	73.7%	....	66.0%	....	....	....	66.6%	....	73.5%
Number of cerebro-spinal meningitis inspections	....	....	2,144	....	....	....	322	....	41	....	50	....	2,557
Number of cerebro-spinal meningitis fumigations	....	....	900	....	54	....	304	....	16	....	14	....	1,288

	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
(d) Pneumonia.													
Number of deaths from pneumonia....	3,574	4,226	2,733	452	364	2,696	2,148	360	284	166	159	7,900	5,688
Death rate, pneumonia.....	17.79	20.49	12.90	17.59	13.33	20.40	15.76	19.04	14.26	23.13	21.79	20.25	14.13
Number of deaths, broncho pneumonia	2,257	3,181	2,889	170	153	974	951	92	100	52	33	4,469	4,126
Death rate, broncho pneumonia.....	11.24	15.42	13.64	6.61	5.60	7.37	6.98	4.86	5.02	7.02	4.52	11.45	10.25
(e) Malarial Fever.													
Number of new cases reported.....	....	....	172	....	24	....	70	....	2	....	91	....	359
Number of deaths from malaria	27	20	14	18	5	12	29	8	3	3	1	91	52
Death rate, malaria.....	.13	.09	.06	.72	.18	.09	.21	.5	.15	.42	.14	.23	.12
(f) Erysipelas.													
Number of new cases reported.....	....	....	437	....	11	....	7	....	2	....	13	....	470
Deaths from erysipelas.....	....	....	179	....	9	....	69	....	6	....	1	....	264
Death rate, erysipelas.....	....	....	.84	....	.32	....	.50	....	.30	....	.13	....	.65
(g) Puerperal Septicaemia.													
Number of new cases reported.....	....	....	5	....	11	....	3	....	11	....	9	....	39
Number of deaths from puerperal septicaemia.....	133	152	151	17	38	109	94	15	16	7	4	300	303
Death rate, septicaemia.....	.66	.73	.71	.66	1.39	.82	.97	.80	.80	.97	.54	.76	.75

	Manhattan.			Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
(a) General Figures.													
Number of cases of diphtheria	10,569	11,016	7,553	1,167	987	5,026	4,307	517	576	432	255	18,158	13,678
Number of deaths from diphtheria	1,077	1,123	660	149	200	706	519	71	72	35	18	2,084	1,469
Death rate, diphtheria	5.36	5.39	3.11	5.70	7.32	5.34	3.80	3.75	3.61	4.87	2.46	5.34	3.64
Case fatality, per cent	10.19%	10.19%	8.7%	12.76%	20.2%	14%	12%	13.7%	11.5%	8.1%	7%	11.4%	10.7%
Manhattan cases died in Bronx	....	....	134	....	....	....	....	....	....	...	....	...	....
Corrected death rate	....	....	3.74	....	2.41	....	....	....	....	....	....	....	....
Corrected case fatality, per cent	....	....	10.5%	....	6.6%	....	....	....	....	....	....	....	....
(b) Injection of Antitoxin by Department Inspectors.													
Number of diphtheria inspections	....	10,886	7,466	....	367	....	951	....	769	....	215	....	9,768
Number of new cases treated with antitoxin	....	3,691	2,849	....	222	....	320	....	47	....	20	....	3,458
Number of curative injections given	....	3,776	2,964	....	240	....	345	....	47	....	17	....	3,613
Number of cases immunized	....	7,985	6,133	....	453	....	913	....	74	....	153	....	7,726
Number contracting disease between two and thirty days	25	26	5	....	1	....	2	....	....	....	....	....	8
Number of cases intubated	....	143	102	....	14	....	50	....	1	....	1	....	168
Number of cases injected (false or removed to hospital)	....	1,754	1,223	....	41	....	140	....	....	....	13	....	1,417
Number of cases considered diphtheria, injected	1,681	1,937	1,726	....	181	....	180	....	54	....	7	....	2,148
Number of deaths	99	115	95	....	14	....	14	....	4	....	1	....	128
Case fatality, per cent	5.8%	5.9%	5.5%	....	7.7%	....	7.8%	....	7.4%	....	14.2%	....	5.9%
Moribund deducted	35	36	36	....	4	....	7	....	1	....	1	....	49
Moribund deducted, fatality per cent.	3.8%	4.1%	3.5%	....	5.6%	....	4%	....	5.6%	....	....	....	3.7%

	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
Total laryngeal cases	290	161	240	....	23	....	37	....	8	....	2	....	310
Deaths	45	28	41	....	3	....	10	....	2	....	1	..	57
Fatality per cent	15.5%	17.4%	15%	....	25%	....	22%	....	25%	....	50%	....	18.3%
Moribund deducted	25	3	23	....	....	....	5	....	1	....	1	..	30
Moribund deducted, fatality per cent.	7.6%	15.8%	8.3%	....	....	....	15.6%	....	14.4%	....	....	....	9.6%
Laryngeal, intubation performed	59	34	48	....	8	....	8	....	2	....	1	....	97
Deaths	13	14	11	....	2	....	3	....	....	....	....	....	19
Fatality per cent	22%	41.1%	23%	....	25%	....	37.5%	....	....	....	....	....	24%
Moribund deducted	3	1	5	....	1	....	1	....	....	....	....	....	7
Moribund deducted, fatality per cent.	10%	40%	14%	....	14.2%	....	28.5	....	....	....	....	....	15%
Laryngeal, no intubation	231	125	192	....	15	....	29	....	6	....	1	....	243
Deaths	31	14	30	....	1	....	7	....	2	....	1	....	41
Fatality per cent	13.4%	11.2%	15.6%	....	6.6%	....	24.1%	....	33%	....	100%	....	16.7%
Moribund deducted	21	2	18	....	1	....	4	....	1	....	....	....	24
Moribund deducted, fatality per cent.	4.7%	9.7%	7%	....	....	....	12%	....	20%	....	....	....	7.7%
(c.) *Cases injected by private physicians with antitoxin furnished by the Department of Health.*													
Number of cases considered diphtheria injected	....	1,316	565	....	119	....	715	....	80	....	74	....	1,553
Deaths	....	142	57	....	11	....	88	....	10	....	10	....	176
Fatality per cent	....	10.8%	10%	....	9.2%	....	12.3%	....	12.3%	....	13.5%	....	11.3%
Moribund deducted	....	53	21	....	3	....	32	....	5	....	4	....	65
Moribund deducted, fatality per cent.	....	7.0%	6.4%	....	6.8%	....	8.2%	....	6.2%	....	9.5%	....	7.4%

Total laryngeal cases	....	285	125	....	15	....	107	....	23	....	19	....	289
Deaths	....	57	37	....	1	....	42	....	8	....	7	....	95
Fatality per cent	....	20%	29.5%	....	6.6%	....	39.2%	....	35%	....	36.8%	....	32.9%
Moribund deducted	....	26	18	....	1	....	21	....	5	....	4	....	49
Moribund deducted, fatality per cent.	....	12%	25%	....	....	....	24.4%	....	16.6%	....	20%	....	19.1%
Number of cases immunized	....	1,532	709	....	120	....	240	....	59	....	18	....	1,146
Number contracting the disease between 21 and 30 days	....	....	5	....	1	....	7	....	3	....	....	....	16

	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
Total new patients treated	....	....	....	....	....	....	....	....	....	....	....	2,636	3,815
Total new patients treated, male	....	....	...	....	....	....	....	....	....	....	....	1,734	2,443
Total new patients treated, female	....	....	....	....	....	....	....	....	....	....	....	903	1,372
Total old patients treated	....	....	....	....	....	....	....	....	....	....	....	8,353	15,580
Total old patients treated, male	....	....	....	...	....	....	....	....	....	....	....	5,684	10,608
Total old patients treated, female	....	....	....	....	....	....	....	....	....	....	....	2,669	4,972
Total number of patients treated	....	....	....	....	....	....	....	....	...	....	....	10,989	19,395
Average daily attendance	....	....	....	....	....	....	....	....	....	....	....	43	64
*Contact with other cases in home or at work	....	....	....	....	....	....	....	....	....	....	....	324	....
*Number of Russians treated	....	....	....	....	....	....	....	....	....	....	....	956	474
*Number of Austrians treated	....	....	....	....	....	....	....	....	....	....	....	326	145
*Number of Germans treated	....	....	....	....	....	....	....	....	....	....	....	180	110
*Number of Irish treated	....	....	....	....	....	....	....	....	....	....	....	103	180
*Number of colored treated	....	....	....	...	...	....	....	....	....	....	....	39	32
*Number of United States treated	....	....	....	....	....	....	....	....	....	....	....	646	588
*Various	....	....	....	....	....	....	....	....	....	....	....	383	801
*Tailors, furriers, sweatshops	....	....	....	....	....	....	....	....	....	....	....	486	488
Tailors	....	....	....	....	....	....	....	....	....	....	....	....	105
Operator	....	....	....	....	....	....	....	....	....	....	....	....	313
Furrier	....	....	....	....	....	....	....	....	....	....	....	....	10
Cigarmaker	....	....	....	....	....	....	....	....	....	....	....	....	18
Factory	....	....	....	....	....	....	....	....	....	....	....	....	103
Housework	....	....	....	....	....	....	....	....	....	....	....	....	801

Various	....	....	....	....	....	....	....	....	....	....	....	....	484
Foreign born patients	....	....	....	....	....	....	....	....	....	....	....	....	1,064
Foreign born patients who contracted tuberculosis before arrival in this country	....	....	....	....	....	....	....	....	....	....	....	....	65
Residents of Manhattan	....	....	....	....	....	....	....	....	....	....	....	2,220	3,272
Residents of The Bronx	....	....	...	....	....	....	....	....	....	....	....	126	147
Residents of Brooklyn	....	....	....	....	....	....	....	....	....	....	....	247	341
Residents of Queens	....	....	....	....	....	....	....	....	....	....	....	24	24
Residents of Richmond	....	....	....	....	....	....	....	....	....	....	....	17	31
Number of prescriptions filled	....	....	....	....	....	....	....	....	....	....	....	15,000	30,384
Number of quarts of milk supplied to Clinic patients	....	....	....	....	....	....	....	....	....	....	....	....	12,510
Number of eggs supplied Clinic patients (six months)	....	....	....	....	....	....	....	....	....	....	....	....	9,757
Total number of new cases	....	....	....	....	....	....	....	....	....	....	....	2,636	3,815
Diagnosis tuberculosis, sputum positive	....	....	....	....	....	....	....	....	....	....	....	660	881
Diagnosis tuberculosis, sputum negative	....	....	....	....	....	....	....	....	....	....	....	591	789
Total number of positive cases transferred to hospitals	....	....	....	....	....	....	....	....	....	....	....	321	554
Total number of positive cases transferred to sanatoria	....	....	....	....	....	....	....	....	....	....	....	....	119
Under treatment at clinic	....	....	....	....	....	....	....	....	....	....	....	440	451
Not found at address given	....	....	....	....	....	....	....	....	....	....	....	250	409
Deaths	....	....	....	....	....	....	....	....	....	....	....	59	137
Cases under treatment, diagnosis doubtful	....	....	....	....	....	....	....	....	....	....	....	107	327
Total number of cases under treatment December 31	....	....	....	....	....	....	....	....	....	....	....	547	778
Cases not found tuberculous transferred to general hospitals and dispensaries or discharged	....	....	....	....	....	....	....	....	....	....	....	1,278	2,145
Cases examined for Raybrook	....	....	....	....	....	....	....	....	....	....	....	....	651
Cases recommended as suitable for admission	....	....	....	....	....	....	....	....	....	....	....	....	107
Number of specimens of sputum examined	....	....	....	....	....	....	....	....	....	....	....	1,776	2,231

* For 1904 these figures are for all cases.

* For 1905 these figures are for tubercular cases only.

	Manhattan.			The Bronx.		Brooklyn.		Queens		Richmond		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905	1904.	1905	1904.	1905.
Tubercle bacilli found	....	....	....	....	....	....	....	....	....	...	.	[illegible]	[illegible]
Tubercle bacilli not found	....	. .	....	....	....	....	....	....	....	.	.	1,118	1,[illegible]
Referred to clinic by reference card	....	....	....	....	....	....	....	....	...		.	4[illegible]	[illegible]
Number referred by reference card that applied for treatment	....	....	....	....	....	....	....	....	....	..	.	19[illegible]	4[illegible]
Number of patients treated in throat clinic	....	....	....	....	....	....	....	....	....	...	.	9[illegible]	[illegible]

	Manhattan and The Bronx.			Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
Number of bacteriological diagnoses suspected diphtheria	18,598	17,946	13,362	8,000	7,051	578	653	674	514	27,190	21,580
Number showing diphtheria bacilli	7,145	7,837	5,446	3,692	2,999	262	226	292	179	12,083	8,823
Nnmber not showing diphtheria bacilli	10,627	9,692	7,510	4,115	3,794	291	380	360	310	14,458	12,061
Number indecisive	826	417	406	193	258	25	47	22	25	657	696
Number later cultures	....	....	12,169	....	7,629	....	507	....	512	25,890	19,273
Number of cultures taken by Medical School Inspectors	13,584	565	313	....	....	....	....	....	....	565	313
Number of trial cultures	14,994	1,195	342	....	227	....	....	....	....	1,195	569
Tuberculosis, Sputum.										Greater	City.
Number of specimens examined	....	....	....	....	....	....	....	....	....	16,971	18,639
Number showing tubercle bacilli	....	....	....	....	....	....	....	....	....	6,033	6,424
Number showing no tubercle bacilli	....	....	....	....	....	....	....	....	....	10,938	12,215
Widal Reaction.											
Number of specimens of blood examined	....	....	....	....	....	....	....	....	....	4,917	5,754
Number showing reaction	....	....	....	....	....	....	....	....	....	863	1,229
Number showing no reaction	....	....	....	....	....	....	....	....	....	3,119	3,646
Number indecisive	....	....	....	....	....	....	....	....	....	935	879
Diazo Reaction.											
Number of specimens examined	....	....	....	....	....	....	....	....	....	681	1,082
Number showing diazo reaction	....	....	....	....	....	....	....	....	....	252	313
Number showing no diazo reaction	....	....	....	....	....	....	....	....	....	515	691
Number showing doubtful reaction	....	....	....	....	....	....	....	....	....	94	78

	Manhattan and The Bronx.			Brooklyn.		Queens.		Richmond.		Total.	
	1903.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.	1904.	1905.
Malaria.											
Number of specimens examined.....	....	....	....	....	....	....	....	....	....	809	1,035
Number showing malaria plasmodia.	....	....	....	....	....	....	....	....	....	14	150
Number showing no malaria plasmodia	....	....	....	....	....	....	....	....	....	795	885
Miscellaneous.											
Number of visits to collect specimens.....	....	....	....	....	....	....	....	....	....	24,805	31,909
Number of culture tubes prepared	....	....	....	....	....	....	....	....	....	91,093	86,124
Number of swabs made	....	....	....	....	....	....	....	....	....	94,190	97,245
Number of laboratory preparations made	....	....	....	....	....	....	....	....	....	82,885	72,132

STATEMENT OF WORK PERFORMED BY THE CORPS OF TRAINED NURSES DURING THE YEAR 1905.

SIR—The general condition of the school children at the beginning of the year, while much improved, left much to be done in regard to cleanliness, taking care of the eye and skin diseases, and eradicating pediculosis.

During the year, the standard of cleanliness in the schools has greatly improved. Children encouraged by the nurses take baths more regularly; clean clothes are put on oftener; the nails and hair are kept in better condition; tooth brushes are used now as part of the daily "cleaning up" process, where they were quite unknown before. Children with trachoma bring their dispensary cards regularly to the nurse in the school so that she may see that the treatment is being received. Skin diseases, such as ringworm, impetigo, favus, etc., the nurse takes care of in the school, and the child being allowed to remain does not lose any time.

The visits to the homes is a very important feature and much valuable work is being done by teaching the parents what is required of them. They are instructed in keeping the children clean, carrying out treatment begun in school by the nurses, obtaining glasses for the children with defective sight, taking children to their physicians or to dispensaries for treatment. Where the mothers are ill or cannot leave home on account of many other smaller children, the nurse takes the children to the dispensary herself. The number of trachoma cases looked after by the nurses has increased rather than diminished. This is due to the fact that they are under much better supervision, since the staff has increased. More visits can be made, consequently, more children looked after and cured. Time can be taken to get under treatment, younger children in the homes, who have not as yet been to school.

The parents too, are beginning to realize through this teaching, the importance of having their own eyes cared for and it is not unusual to find mothers at the dispensary with their children receiving treatment themselves. Moreover, many unsanitary conditions are brought to light, during the nurses' visits to the homes. Instances are found where

children sent home with scabies, work on the sweat-shop clothing and carry it to and from the shops. Cases of contagious disease not reported (tuberculosis, measles, etc.,) are also found, and many other non-observances of the law. These are all reported to the proper divisions. Where a destitute family is found, the relief societies are notified and the proper aid is given.

During July and August, while the schools are closed, the nurses are assigned to "Summer Corps" work. Their duties are to make inspections in the tenements and where a child under one year of age is found, a card is forwarded to the Department indicating the general conditions and health. In case of illness, a nurse is detailed to take care of the child until he is well and to give careful instruction in regard to feeding and hygiene. Instruction is given in the homes where food is not properly prepared, and where there is no illness. This where instruction has been carefully observed has proved an invaluabl prophylactic in the number of cases of summer illness.

Two nurses are detailed to look after cases of scarlet fever and measles, not sent to hospitals, and who are too poor to pay for skilled nursing. This is a very important branch of the work. The parents are instructed in the care of the eyes, nose and skin, in proper isolation and disinfection, the dangers of complications and the manner in which contagion may be carried. The nurses wear cotton gowns which are disinfected each day at the hospital. These are put on and removed on going in and out of the houses. During the year people have learned to report cases voluntarily knowing that they will be cared for if assistance is asked. Much preventive work is consequently being done.

The present staff of nurses is not large enough to carry out the work as at present planned and should be increased to at least 75. The work could then be done more uniformly in the various boroughs. The work would be much more effective if there was some system whereby the parents who object to having their children treated could be induced to do so, for instance, a child now excluded from school for trachoma or some skin disease and the parents object to have him put under treatment, has nothing done and he remains out of school, on the street, mixing with the other children he is supposed to be separated from.

In most instances these cases are referred to the Department of Education. This is a weak spot in the system.

A child excluded by the Department of Health should be kept by them under supervision and returned to school cured. This is essential for good results and to do so, means more authority than the staff of nurses can assume.

A fund or means of getting glasses for the very poor would greatly facilitate the work and keep many children in better physical condition.

During the year, 7 nurses resigned and 23 have been appointed, making a staff of 50.

They are assigned as follows:

Boroughs.	Nurses.	Number Schools.	Attendance.
Manhattan	31	150	245,771
Brooklyn	14	97	127,550
Bronx	1	8	15,014
Queens	2	18	13,261
Richmond	2	8	6,031

The following is a tabulated report of the work done during the year 1915:

	Manhattan.	Brooklyn.	Bronx.	Queens.	Richmond.
Scarlet fever	1,284	1,173	257	63	23
Diphtheria	1,103	1,322	216	.....	2
Typhoid fever	1,385	1,433	1,227	1,205	1,225
Measles	1,752	714	158	128	2
Pneumonia	1,078	1,517	1,244	1,51	111
Impetigo	1,253	1,468	1,308	1,124	1,325
Mumps	1,555	78	.....	22	2
Scarlet fever	1,078	.....	.....	.....	.....
Measles	1,218	.....	.....	.....	.....
Diphtheria	289	.....	.....	.....	.....
Erysipelas	132	.....	.....	.....	.....
Miscellaneous	23,084	23,154	1,308	1,122	1,211
Total	520,350	261,948	22,508	20,222	15,088
Number of children	74,142	12,733	2,464	3,035	1,037
Number of examinations	1,338,223	1,504	2,574	1,015	3,077
Visits to					
Tenement houses	27,112	11,074	640	540	410
Schools	13,048	9,210	640	1,437	725
Miscellaneous	570	324	27	28	377
Total	41,630	20,608	1,307	2,305	1,512

Summer Corps.

Tenements visited	8,642
Miscellaneous visits	297
Families visited	54,273
Number children under 2 years	16,618
Number sick treated	427
Number other physicians' patients	179
Number revisits	288
Milk inspections	1,535
Number sanitary complaints	7
Measles	834
Diphtheria	64
Scarlet fever	526
Distributed—	
Number circulars	19,780
Number ice tickets	118
Number milk tickets	1,440
Number St. John's Guild tickets	1,086
Number sunstroke	396

STATEMENT OF WORK OF THE VACCINE LABORATORY DURING THE YEAR 1905.

The site of the laboratory has been maintained at East Sixteenth street, but the number of new buildings erected in the immediate vicinity has taken away from that place much of its desirability as a place for a vaccine laboratory. Plans have been prepared for a new laboratory to be erected outside of Manhattan, and it is hoped that they may be used in the construction of a much needed new laboratory during the coming year.

Increased experience has emphasized the importance of great cleanliness in the processes of production, and more room is needed for the proper cleansing of the animals, and for the separation of the animals during the various stages.

It has been shown during the year that a coccus, not infrequently present in the skin of the calves, is extremely persistent, being practically uninfected by glycerine, and though this coccus is non-pathogenic it is desirable that vaccine issued should be as free as possible from bacteria. It has been made the regular practice, therefore, during the year, to issue the virus in a half per cent. carbolic glycerine emulsion.

It has been found that insufficient attention has been paid in the past by physicians to the choice of vaccine virus not deteriorated by age, and steps have been taken to examine the supplies of vaccine virus kept throughout the city at frequent intervals, and to replace old virus by fresh.

While the virus issued by the Laboratory is regularly efficient for primary vaccinations, it has been found that its value for secondary vaccinations is subject to considerable variations. This value is tested especially by the school vaccinators in their work, and it has been found that of two specimens of virus, both efficient for primary work, one may give a much larger percentage of success in secondary vaccinations than the other. Attempts now are made, therefore, by the Laboratory to choose for school use particularly active virus so that the belief of a successful revaccination may be as widely extended as possible.

The influence of vaccination in the production of immunity against smallpox has been studied during the past year and will continue to be

studied hereafter by a more close observation than has hitherto been made of the vaccination history of cases of smallpox. All cases of smallpox in the City are now studied carefully with reference to their vaccination history, and the results entered upon a card index. The material is therefore accumulating for more precise knowledge in this regard.

Experiments have been made on the possibility of vaccination by feeding vaccine virus. These experiments have been both animal experiments and studies of the effect of digestive secretions on vaccine virus in vitriol, and the entire unreliability of vaccination by this method has been clearly demonstrated.

STATEMENT OF WORK PERFORMED IN THE CHEMICAL LABORATORY DURING THE YEAR 1905.

In the early part of the year the supervision of the milk inspection was transferred to the Division of Inspections, Borough of Manhattan.

The work of the laboratory has been of the usual varied character, including with those substances which are most closely related to the health of the city, many other substances which are required by the Department of Health in its work.

Besides the work done for the Department of Health in the Chemical Laboratory, work for many other City Departments and Public Societies has been done in this laboratory.

A new laboratory has been built at the foot of East Sixteenth street and we are now in the process of moving. This laboratory has nine separate rooms which are equipped with every convenience for chemical work. The Department therefore looks forward to a year of increased and better work.

The following is a list of the substances analyzed during the past year. The food stuffs and drugs are also classified and the results of analyses stated in detail.

Alcoholic Beverages.

20 samples of whisky were examined for injurious ingredients, of which 15 were free from methyl (wood) alcohol.

5 gave the reaction for methyl alcohol.

3 samples of wine were examined—

Claret contained 5.5 per cent. alcohol by weight.

Passover contained 2.21 per cent. alcohol by weight.

Wine contained 6.1 per cent. alcohol by weight.

4 samples of alcohol ethyl, were found to vary from 77.09 per cent. to 98.91 per cent. by weight.

1 sample of apple juice, supposed to be non-alcoholic, contained 0.93 per cent. alcohol by weight.

1 sample of molasses spirits contained 92.92 per cent. of alcohol by weight.

The following were examined for poisonous ingredients:

1 sample of beer.

1 sample of cigarette (cinnamon).

1 sample of coffee (liquid).

22 samples of coloring matter.
2 samples of salad dressing.
4 samples of cake.
1 sample of chicken.
1 sample of cheese.
1 sample of cream coloring.
1 sample of glove lining.
1 sample of meat.
1 sample of pig's head jelly.
1 sample of pork and beans.
1 sample of tomatoes (canned).
1 sample of wall paper, examined for arsenic.

These substances were examined for mineral poisons, adulterants and organic poisons, as the various substances required, and were found to be free from injurious ingredients. The cigarettes were sold to school children, and were said not to contain tobacco. Tobacco was not present.

Baking Powders.

No.	Brand.	Where Purchased.	Results.
24535	.....	.....	Phosphate powder, unadulterated.
22433	Blue Ribbon..	James Butler, No. 1042 Second avenue	Tartrate powder, unadulterated.
22435	Daisy.....	Andrew Davey, No. 1063 Second ave..	Phosphate powder, unadulterated.
22495	Egg.....	Fourteenth Street Store, Fourteenth street and Sixth avenue.....	Phosphate powder, unadulterated.
23067	Hazard's High Test.	.....	Tartrate powder, unadulterated.
22434	O. K.....	Andrew Davey, No. 1063 Second ave.	Mixed phosphate and alum powder unadulterated.
22497	Paragon.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	Tartrate powder, unadulterated.
22432	Royal.....	Andrew Davey, No. 1063 Second ave..	Tartrate powder, unadulterated.
22431	Solar	J. H. Holsten, No. 238 East Fifty-sixth street.....	Phosphate powder, unadulterated.
22496	Stiner's.....	Joseph Steiner, No. 71 Vesey street...	Phosphate powder, unadulterated.
22764	Sea Foam. ...	Henry Meyer, No. 312 Lenox avenue..	Tartrate powder, unadulterated.
24620	Sweetheart....	Avegian Andon, No. 734 Second ave...	Silicious material, 28.55 per cent.
24535	.....	.....	Package received opened, no satisfactory analysis could be made.
24514	Solar.....	Henry Burte, No. 32 West End avenue	Phosphate powder, unadulterated.

Butter.

No.	Where Purchased.	Results.
22118	Morris Dennit, No. 1928 Third avenue	Unadulterated.
22163	Harris Kalifeld, No. 1846 Amsterdam avenue	"
22171		"
22388	Carl Tastensen, No. 308 Flushing avenue, Long Island City	Renovated.
22389	Carl Tastensen, No. 308 Flushing avenue, Long Island City	Unadulterated.
22390	H. C. Vogt, No. 286 Flushing avenue, Long Island City	"
24310		"
22787		"
22881		"
23754	S. Rabinowitz, No. 217 Boerum street, Brooklyn	"
23718		"
23140	Charles Schulman, No. 146 Broad street, Stapleton, S. I.	Renovated.
22188	Mayer France, No. 3739 Third avenue	Unadulterated.
22189	G. Smelowitz, No. 1515 Madison avenue	"

No.	Brand.	Where Purchased.	In Material as Sold.							
			Water, Per Cent.	Total Solids, Per Cent.	Cane Sugar, Per Cent.	Milk Solids, Per Cent.	Ash, Per Cent.	Protein, Per Cent.	Milk Sugar, Per Cent.	Fat, Per Cent
23688	Regent	Clark, Chapin & Bushnell, No. 177 Duane St.	27.91	72.09	40.27	31.82	1.78	8.16	12.89	9.15
23689	Shrewsbury	E. C. Hazard & Co., No. 117 Hudson Street.	27.01	72.99	40.51	32.48	2.13	8.87	12.16	9.25
23690	Echo Farm	Wm. A. Leggett, No. 151 Hudson Street	26.28	73.72	42.77	30.95	1.94	8.52	12.39	9.39
23691	Gilt Edge	Scranton Condensed Milk Co., No. 77 Hudson Street	25.49	74.51	43.11	31.40	1.93	7.81	12.76	9.25
23715	Essie	J. Butler, No. 1142 Second Avenue	28.32	71.68	43.95	27.73	1.73	7.27	12.13	9.37
23716	Butler	J. Butler, No. 1142 Second Avenue	21.64	72.36	43.33	29.03	1.74	7.98	11.69	9.22
23717	Liberty	J. Butler, No. 1142 Second Avenue	26.77	73.23	42.89	30.34	1.71	7.81	11.62	9.64
23790	Vermont	Richard J. Rogers, No. 74 Hudson Street	26.99	73.01	43.01	30.00	1.64	7.54	10.70	10.58
23829	Darling	14th Street Store, Fourteenth Street and Sixth Avenue	28.60	71.40	41.23	29.17	1.76	8.06	8.22	10.25
23830	Fern	14th Street Store, Fourteenth Street and Sixth Avenue	26.16	73.84	44.96	28.88	1.75	7.36	9.98	9.92
23831	Nestle's	14th Street Store, Fourteenth Street and Sixth Avenue	28.27	71.73	43.23	28.50	1.61	7.81	10.61	9.81
23891	Fountain	Siegel-Cooper Co., Eighteenth Street and Sixth Avenue	26.24	73.76	41.75	32.01	1.70	9.22	13.36	9.99
23892	Daisy	Siegel-Cooper Co., Eighteenth Street and Sixth Avenue	27.80	72.20	40.09	32.11	1.60	8.34	10.57	9.50
23893	Fern	Siegel-Cooper Co., Eighteenth Street and Sixth Avenue	26.05	73.95	41.47	32.48	1.73	8.79	12.89	10.10
23896	Rival	Siegel-Cooper Co., Eighteenth Street and Sixth Avenue	27.14	72.86	41.96	30.90	1.56	9.68	12.63	9.22
23908	Magnolia	J. H. Holsten, No. 238 East Fifty-sixth Street.	25.77	74.23	44.74	29.49	1.54	8.69	11.54	9.59
23909	Banner	J. H. Holsten, No. 238 East Fifty-sixth Street.	27.59	72.41	41.50	30.91	1.51	8.42	11.49	9.95
24090	Hunter	Adams Company, Sixth Avenue and Twenty-second Street	27.17	72.83	40.35	32.48	1.78	8.67	13.10	9.04
24091	Carnation	Adams Company, Sixth Avenue and Twenty-second Street	27.14	72.86	41.64	31.22	1.63	8.01	11.31	9.99
24165	Vermont	R. J. Rogers, No. 74 Hudson Street	25.13	74.87	43.50	31.37	1.66	7.59	11.64	10.48
24166	Banner	J. H. Holsten, No. 238 East Fifty-sixth Street.	30.13	69.87	40.33	29.54	1.76	7.34	10.58	9.84
24209	Crown Astor	A. F. Beckman, No. 1327 Second Avenue	25.38	74.62	44.49	30.13	1.68	7.72	11.59	9.14

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Condensed Milks—(Continued)—*Fat and Ash Only Determined.*

No.	Brand.	Where Purchased.	Fat, Per cent.	Ash, Per cent.
22209	Liberty.....	James Butler, No. 1042 Second avenue.....	11.13	1.71
22298	Lily White.....	Macy & Co., Thirty-fourth street and Broadway...	10.96	1.69
22299	Grandmother's .	Atlantic & Pacific Tea Co., No. 774 Third avenue.	10.50	1.51
22300	Bouquet.....	Henry Siegel, Fourteenth street and Sixth ave....	9.97	1.41
22369	Fountain	Siegel-Cooper Co., Eighteenth st. and Sixth ave..	9.99	1.37
22370	Hunter.....	Adams Co., Twenty-first street and Sixth avenue..	10.79	1.50
22371	Carnation	Adams Co., Twenty-first street and Sixth avenue..	10.47	1.48
22373	Nation's Pride..	J. H. Holsten, 238 East Fifty-sixth street.....	8.75	1.67
22501	Star	Henry Siegel, Fourteenth street and Sixth ave....	10.12	1.83
22601	.....	.....	11.38	2.06
22912	Signal.....	W. H. Dudley & Co., Hudson and Duane streets..	10.82	1.58
22913	Purity.....	W. H. Dudley & Co., Hudson and Duane streets .	12.12	1.53
21157	White Pansy...	Patrick Parker, No. 2390 Eighth avenue.....	9.00	1.80
23285	Nation's Pride..	Bloomingdale Bros., Fifty-ninth st. and Third ave.	9.98	1.92
23286	Paragon.....	Bloomingdale Bros., Fifty-ninth st. and Third ave.	9.14	1.85
23287	Dime.....	Bloomingdale Bros., Fifty-ninth st. and Third ave.	9.49	1.61
23310	Blue Bell.....	Siegel-Cooper Co., Eighteenth st. and Sixth ave..	10.22	1.69
23311	White House...	Henry Siegel, Fourteenth street and Sixth avenue.	6.61	1.87
23312	Royal Stuart...	Simpson-Crawford Co., Nineteenth st. & Sixth ave.	10.09	1.74
23338	White Pansy...	Victoria Market, No. 774 Columbus avenue.....	10.22	1.55
23494	White House...	Henry Siegel, Fourteenth street and Sixth avenue.	7.00	1.85
23495	Bouquet.....	Henry Siegel, Fourteenth street and Sixth avenue.	9.63	1.68

NOTE—These samples comply with section 55, Sanitary Code.

Evaporated Creams.

No.	Brand.	Where Purchased.	Fat. Per cent.	Ash. Per cent.	Total Solids. Per cent.
23588	Pet	Bloomingdale Bros., Fifty-ninth street and Third avenue	5.72	1.49	
23589	Highland	Bloomingdale Bros., Fifty-ninth street and Third avenue	9.27	1.61	
24245	Pet	Bloomingdale Bros., Fifty-ninth street and Third avenue	5.90	1.61	29.05
24321	Our Pet	Ehrich Bros., Twenty-second street and Sixth avenue	7.47	1.35	24.27
22372	Top Notch	Store, No. 214 East Fifty-sixth street.	9.22	....	27.34
24463	Venus	" No. 1252 Third avenue	6.51	1.13	20.66
23713	Borden's	J. H. Holsten, No. 238 East Fifty-sixth street	8.23	....	28.81
23714	Top Notch	Store, No. 214 East Fifty-sixth street.	8.45	....	31.38
23832	St. Charles	14th Street Store, Fourteenth street and Sixth avenue	7.86	....	29.71
23833	Our Pet	Bloomingdale Bros., Fifty-ninth street and Third avenue	8.77	....	29.71
23804	Peerless	Siegel-Cooper Co., Eighteenth street and Sixth avenue	8.65	....	28.75
23805	Superb	Siegel-Cooper Co., Eighteenth street and Sixth avenue	7.96	....	27.69
23791	Lily White	Macy & Co., Thirty-fourth street and Broadway	8.97	....	28.50

Catsup.

No.	Brand.	Where Purchased.	Color.	Preservatives.
22057	*Columbia		Artificial	Benzoic acid.
22213	Columbian	Simpson-Crawford Company, Nineteenth street and Sixth avenue	"	
22313	*Priscilla		Natural	Benzoic acid.
22666	*Hazard		"	
23068	Blue Label	O. Wintz, Nos. 105 and 107 Henry street	"	Benzoic acid.
24232	*Shrewsbury		"	
24301	Long Island	S. B. Reynolds, No. 1748 Lexington avenue	"	Benzoic acid.
24302	Long Island Delight	The Rown Tea Company, No. 2307 Third avenue	"	
24338	Genuine	Andrew Davey, No. 271 Ninth avenue	"	
24609	Long Island	Harris Linowitz, No. 614 East Fifth street	"	Benzoic acid.

* Received from Chief Clerk's office.

No.	Substance.	Brand.	Where Purchased.	Results.
22819	Bitter Almonds...	XX.....	James O'Connor, No. 321 West Twenty-fifth street.....	Unadulterated.
22824	"	Burnett's.....	S. B. Reynolds, No. 450 Ninth avenue.....	"
22823	"	Moller's.....	Louis Mohnan, No. 330 Eighth avenue.....	"
22822	"	Gem.....	Andrew Davey, No. 638 Ninth avenue.....	"
22821	"	Goodhart's.....	J. C. Aufenanger, No. 290 Ninth avenue.....	"
22820	"	Sauer's.....	N. Vagts, No. 316 Ninth avenue.....	Tropaeolin present.
23133	"	"	" "	"
22985	Ginger.....	.....	M. Barron & Co., No. 5 Rivington street.....	Unadulterated.
22430	Lemon.....	.....	J. H. Holsten, No. 238 East Fifty-sixth street.....	Artificial color, 0.00 per cent. lemon oil.
22423	"	Sauers.....	" "	" 8.00 "
22359	"	.....	.....	Unadulterated, 0.12 "
22360	"	Gunnisons XX....	.....	" 0.62 "
22244	"	.....	L. Finkelstein, No. 49 Carmine street.....	" 3.52 "
22204	"	.....	Geo. Gregorius, 259 First avenue	" 4.52 "
22214	"	.....	Gustav Unger, No. 1066 Second avenue.....	" 4.52 "
22218	"	.....	John Proben, No. 295 Amsterdam avenue	" ....
22230	"	.....	Zagat Drug Company, No. 2117 Eighth avenue.....	" 3.24 "
22231	"	.....	S. A. Baron, No. 20 Fulton street.....	" 5.29 "
23316	"	.....	United Syrup Company, No. 215 East Fourth street	" 4.38 "
23315	"	.....	Thaller & Kaplan, No. 164 East Fourth street.....	Artificial color, 0.29 "
22430	"	.....	J. H. Holsten, No. 238 East Fifty-sixth street.....	" 0.00 "
22983	"	XXX.....	M. Barron & Co., No. 5 Rivington street.....	" 0.47 "
22758	Root Beer	Monarch.....	A. F. Beckman, No. 225 Ninth avenue.....	Unadulterated.
22759	"	Bryant's.....	S. B. Reynolds, No. 450 Ninth avenue.....	"

Flavoring Extracts—(Continued).

No.	Substance.	Brand.	When Purchased.	Results.
22760	Root Beer	Knapp's.	J. C. Aufenager, No. 298 Ninth avenue	Unadulterated.
22761	"	Reives	P. Jackson, No. 242 Ninth avenue	"
22762	"	Waverly	N. Vagts, No. 316 Ninth avenue	"
22763	"	Peerless	J. Butler, No. 363 Ninth avenue	"
22986	Strawberry		M. Barron & Co., No. 5 Rivington street.	Artificial color.
23129	Vanilla		Demaco Bros., No. 7 Chrystie street	0.55 per cent. vanillin, 0.04 per cent. coumarin.
23131	"		Max Harrison, No. 88 Oliver street	0.03 " 0.19 "
23135	"		Louis Siegel, No. 27½ Chrystie street	0.45 " 0.15 "
23136	"		Mrs. H. Spies, No. 433 East Houston street	0.41 " 0.06 "
23137	"		Jacob Cohen, Nos. 37-39 Avenue D	0.43 " 0.24 "
23158	"		J. M. Horton, Nos. 7-11 Chambers street	0.04 " 0.00 "
24167	"	Champion	J. H. Holsten, No. 238 East Fifty-sixth street	0.02 " 0.04 "
22422	"	Continental	A. Davey, No. 1063 Second avenue	Coal tar dye, 0.08 per cent. vanillin, 0.05 per cent. coumarin.
22424	"	Empire State	" "	0.15 per cent. vanillin, 0.09 per cent. coumarin.
22425	"	Our Own	J. Butler, No. 1042 Second avenue	0.17 " 0.14 "
22426	"	Peerless	" "	0.28 " 0.19 "
22427	"	Atlas	Andrew Davey, No. 1063 Second avenue	Coal tar dye, 0.10 per cent. vanillin, 0.07 per cent. coumarin.
22428	"	Champion	J. H. Holsten, No. 238 East Fifty-sixth street	0.02 per cent. vanillin, 0.07 per cent. coumarin.
22429	"	Eagle	J. Butler, No. 1042 Second avenue	0.11 " 0.10 "
22498	"	Morning Glory	Jos. Steiner, No. 71 Vesey street	0.06 " 0.07 "
22499	"	Paragon	Bloomingdale Bros, Fifty-ninth street and Third avenue	0.07 "
22500	"	Kenwood	Fourteenth Street Store, Fourteenth street and Sixth avenue	0.02 " 0.09 per cent. coumarin.
22949	"			0.15 "
22984	"	F. M.	M. Barron & Co., No. 5 Rivington street	0.08 " 0.05 per cent. coumarin.

Flavoring Extracts—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results.
22493	Vanilla	.....	Fred. Aberling, No. 1426 Madison avenue	0.21 per cent. vanillin, 0.02 per cent. coumarin.
*23362	"	.....	Atlantic & Pacific Tea Co	0.04 per cent. coumarin.
23130	Oleum Vanilla	.....	A. Cohen, No. 105 Columbus avenue	Vanillin, 4.15 per cent.; coumarin, 0.99 per cent.
24610	Vanilla Beans	.....	.....	Unadulterated.
24021	Lemonette	Eifel Tower	Adams & Co., Twenty-second street and Sixth avenue	Made up with cane sugar and coal tar dye.
23038	Arisol (for candy flavoring)	.....	Crabdell & Godley, Bronx	Concentrated sulphuric acid.

* Examined for coumarin only.

Fish.

No.	Substance.	Brand.	Where Purchased.	Preservatives.
24366	Lobster	Royal Scarlet	R. C. Williams, No. 56 Hudson street	Absent.
25365	"	Golden Crown	Kemp, Day & Co., No. 73 Hudson street	"
24584	"	Star	Siegel, Cooper & Co., Eighteenth street and Sixth avenue	"
24579	"	"	George Wilding, No. 35 Amsterdam avenue	"
22729	Sardines	.....	J. B. Tompkins, No. 681 Ninth avenue	"
24215	"	Imperial	U. H. Dudley & Co., No. 165 Duane street	"
24214	"	Continental	" "	"
24375	"	Dixie	" "	Cotton seed oil present.
24370	"	Continental	" "	"
24369	"	Francaise	R. C. Williams, No. 56 Hudson street	Cotton seed oil absent.
24561	"	Le Mentec	C. Mulvey, No. 173 East Eighty-fourth street	"
24577	"	Continental	A. Davey, No. 863 Second avenue	Cotton seed oil present.
24578	"	A. L. Huile	J. Butler, No. 782 Second avenue	Absent.

Fish—(Continued).

No.	Substance.	Brand.	Where Purchased.	Preservatives.
24583	Sardines	A. L. Hulle	Siegel, Cooper & Co., Eighteenth street and Sixth avenue	Absent.
24372	"	Mooseabec	J. M. Chapman, No. 95 Hudson street	Olive oil present.
24373	"	"	" "	"
24378	"	Underwood	" "	"
24387	"	Loqueran et Cie	Henry Frank, No. 1565 Madison avenue	"
24388	"	Yacht Club	" "	"
24390	"	Crescent	" "	"
24508	"	Continental	C. Vagt, No. 335 Seventh avenue	Preservatives absent.
24389	"	A. J. Martel	Henry Frank, No. 1565 Madison avenue	Olive oil present.
24367	Shrimp		Kemp, Day & Co., No. 73 Hudson street	Preservatives absent.
22727	Herrings(kippered)		J. B. Tompkins, No. 681 Ninth avenue	"
24765	Cod (shredded)	Peerless	J. Butler, No. 74 Amsterdam avenue	Trace of borax.
24731	" "	Chelsea	H. Hanson, No. 100 West Fifty-third street	2.40 per cent. of borax.
22436	" "	Best	Frank Lanso & Co., No. 856 Ninth avenue	0.83 "
22437	" "	Matchless	Theo. Bosch, No. 683 Ninth avenue	0.67 "
22441	" "	Erin	Herman Beckman, No. 725 Tenth avenue	0.66 "
22442	" "	Bell	Thos. Anderson, No. 766 Tenth avenue	1.10 "
24368	Mackerel		J. M. Chapman, No. 95 Hudson street	Unadulterated.
22732	"	White Cross	J. B. Tompkins, No. 681 Ninth avenue	"
24562	Salmon	Arctic Red	Wm. Schanomann, No. 1241 Lexington avenue	"
24576	"	Globe	Geo. Wilding, No. 35 Amsterdam avenue	"
24580	"	White Rose	F. Buschmann, No. 843 Second avenue	"
24582	"	Argo	Siegel Cooper, Eighteenth street and Sixth avenue	"
24357	"	Cavalier	H. M. Anthony, No. 48 West Broadway	"

Fish—(Continued).

No.	Substance.	Brand.	Where Purchased.	Preservatives.
24360	Salmon	Silver Cord	J. M. Chapman, No. 95 Hudson street	Absent.
24363	"	Big Tree	Austin Nichols, No. 61 Hudson street	"
24751	"	American	J. Butler, No. 976 Sixth avenue	"
23778	"	Golden Rod	Herman Mannopoff, No. 235 West Forty-sixth street	"
22728	"	Northern Red	J. B. Tompkins, No. 681 Ninth avenue	"
22730	"	Meadow Lark	N. Vagts, No. 316 Ninth avenue	"
22731	"	Wales	J. C. Aufenanger, No. 290 Ninth avenue	"
24559	"	Wigwam	James Reeves, No. 900 Amsterdam avenue	"
24560	"	Humpty Dumpty	James Reeves, No. 900 Amsterdam avenue	"

Honeys.

No.	Substance.	Brand.	Where Purchased.	Results.
22391	Honey	Clover	A. F. Beckman, No. 89 Amsterdam avenue	Unadulterated.
22392	"	Peerless (strained)	J. Butler, No. 131 Amsterdam avenue	Made up with glucose.
22394	"	Violet	A. Davey, No. 21 Amsterdam avenue	"
22399	"	Honey Sugar and Corn Syrup Compound	John H. Wulff, No. 35 Amsterdam avenue	"
22400	"	Ritter's (comp'nd)	John Breden, No. 143 Amsterdam avenue	"
23439	"	Florida orange blossom	Wm. & John Kruse, No. 814 Second avenue	Unadulterated.
23440	"	Red Cross	M. Cronin, No. 1748 Second avenue	"
23441	"	Violet	Andrew Davey, No. 1681 Second avenue	Made up with glucose.
23442	"	Honey Compound	F. K. Hothan, No. 1714 Second avenue	"
23443	"	W. & W	A. Davey, No. 244 Avenue A	"

Honey—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results.
23444	Honey.....	Triscum.....	A. Altman, No. 516 East Fifth street.....	Made up with glucose.
23445	"	Honey Choice Compound...	C. F. Rust, No. 427 Seventh avenue.....	"
23446	"	Pure Strained.....	C. Vogt, No. 335 Seventh avenue.....	Unadulterated.
23447	"	Honey Compound	J. H. Behrens, No. 260 Avenue A.....	Made up with glucose.
23448	"	Clover Blossom...	C. F. Rust, No. 427 Seventh avenue.....	Made up with sucrose.
23449	"	Honey Extract ...	R. Degenaro, No. 365 Seventh avenue.....	Unadulterated.
23450	"	Pure Strained	Loretta Vogt, No. 335 Seventh avenue.....	Made up with glucose.
24574	"	Violet	William King, No. 749 Amsterdam avenue.....	"
24169	"	New Compound..	J. H. Holsten, No. 238 East Fifty-sixth street.....	"
24170	"	" ..	J. H. Holsten, No. 238 East Fifty-sixth street.....	"

Jams, Jellies and Preserved Fruits.

No.	Substance.	Brand.	Where Purchased.	Results.
24168	Raspberry jam....	Luxury.....	J. H. Holsten, No. 238 East Fifty-sixth street.....	Artificial color.
24256	Gooseberry jam...	.....	.....	Unadulterated.
23966	Raspberry jam....	Liberty.....	J. Butler, No. 1042 Second avenue.....	Artificial color, made up with glucose.
22722	Blackberry jam...	Rosalind.....	J. Butler, No. 353 Ninth avenue.....	" "
24255	Currant jelly.....	.....	.....	Unadulterated.
22724	"	Rosalind.....	J. Butler, No. 353 Ninth avenue.....	Made up with glucose, artificial color.
22315	" ...	Ontario Preserving Co.....	.....	Unadulterated.
22757	Cherries (tinned).	Royal Ann	J. B. Tompkins, No. 681 Ninth avenue.....	"

Jams, Jellies and Preserved Fruits—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results
24499	Cherry Juice.....	.....	.....	Unadulterated.
24556	Currant Jelly.....	Mayflower.....	John Rollman, No. 763 Columbus avenue.....	Made up with glucose, artificial color.
22726	Plum Jelly.....	Exwaco.	H. N. Boehack, No. 743 Ninth avenue.....	" "
22723	Raspberry Jelly..	Rosalind.....	J. Butler, No. 353 Ninth avenue.....	" "
22725	" ..	Renwick.....	H. N. Boehack, No. 743 Ninth avenue	Made up with glucose, artificial color, salicylic acid present.
22053	" ..	Monogram.....	John Rollman, No. 763 Columbus avenue.....	Unadulterated.
24248	" ..	.....	H. C. Dolt, No. 925 Columbus avenue.....	Made up with glucose, artificial color.
22721	Strawberry Jelly..	Rosalind.....	J. Butler, No. 353 Ninth avenue.....	" "
24125	" ..	Tiger.....	Bloomingdale Bros., 59th street and Third avenue	Unadulterated.
24575	" (canned)	Manhattan.....	E. Kopp, No. 272 Third avenue.....	"
24573	" Jelly....	Acme.....	Chris H. Sturz, No. 870 Columbus avenue.....	Artificial color.
22502	Jelly Powder.....	Tryphosa.....	14th Street Store, 14th street and Sixth avenue.....	"
24356	Plums (canned)..	Monroe.....	Andrew Davey, No. 862 Ninth avenue.....	Unadulterated.
24517	Pears " ..	Ocean.....	Andrew Davey, No. 2241 Third avenue.....	"

Syrups.

No.	Substance.	Brand.	Where Purchased.	Results.
23313	Lemon.....	....	Louis Katz, No. 200 East 7th street	Artificial color.
23314	"	.....	N. Wechsler, No. 193 Avenue C	"
23339	"	.....	I. Lefkowitz, No. 154 Delancey street.....	"
22398	Karo-corn.....	.....	Wm. Meyer, No. 62 Amsterdam avenue	Made up with glucose.

Syrups—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results.
22396	Maple		John H. Wulff, No. 35 Amsterdam avenue	Made up with glucose.
24022	Strawberry		Adams & Co., 22nd street and 6th avenue	Made up with invert sugar.
23462	Vanilla			" ethyl acetate and cane sugar.
24089	Fruit	Clinton	Adams & Co., 22nd street and 6th avenue	Artificial color.
22397	Maple	Vermont	P. J. O'Reilly, No. 8 Amsterdam avenue.	Made up with cane sugar.
22393	"	Peerless Vermont.	J. Butler, No. 131 Amsterdam avenue	"
22395	"	Atlas	Andrew Davey, No. 21 Amsterdam avenue	"
22386	"	Hazen's		"
22581	"		Louis Chiappe, No. 100 Columbus avenue	Unadulterated.
22046	"			Adulterated.
22385	Peach			Unadulterated.
24537	"			"
22668	Molasses	Dove	T. Bazinne, No. 224 East 59th street	Made up with glucose.
24427	Maple Sugar	Sunbeam		Unadulterated.

Meats (*Canned and Preserved*).

No.	Substance.	Brand.	Where Purchased.	Results.
23218	Beef Peptone			Unadulterated.
22141	Beef Extract	Be Fex	Siegel-Cooper & Co., Eighteenth street and Sixth avenue	"
24473	Bologna	Extra No. 6	M. Zimmerman, No. 118 East Houston street	"
24472	"	Ordinary No. 5	M. Zimmerman, No. 118 East Houston street	"
24474	"	Kosher No. 7	M. Zimmerman, No. 118 East Houston street	"

Meats (Canned and Preserved)—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results.
22692	Bologna	.....	E. D. Meyer, No. 683 Third avenue	Unduiterated.
22693	"	.....	I. Joachin, No. 533 Third avenue	"
22694	"	.....	A. Froelich, No. 808 Third avenue	"
22695	"	.....	Chas. Meyer, No. 945 Third avenue	"
22696	"	.....	Wm. Botzenmeyer, No. 551 Third avenue	"
22697	"	.....	Joseph Brnst, No. 747 Third avenue	"
22698	"	.....	Ira Hoechle, No. 769 Third avenue	"
22143	Bouillon (capsules)	Anker's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22142	"	Maggi's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22144	Beef Extract	Liebig's	J. H. Holsten, No. 238 East Fifty-sixth street	Contained glucose.
22145	"	Peerless	J. Butler, No. 1042 Second avenue	Unadulterated.
22146	"	Eastman's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22147	"	Our Own	Atlantic and Pacific Tea Company, No. 774 Third avenue	"
22148	"	Libby's	Fourteenth Street Store, Fourteenth street and Sixth avenue	"
22149	"	Armour's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22150	"	Cudahy's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22151	"	Liebig's	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
22152	"	Atlas	Andrew Davey, No. 1063 Second avenue	"
22715	Corned Beef	.....	J. B. Tompkins, No. 681 Ninth avenue	"
22719	"	.....	Andrew Davey, Ninth avenue, corner Forty-fifth street	"
22720	"	.....	S. B. Reynolds, No. 450 Ninth avenue	"
23120	"	.....	S. Weill, No. 865 Ninth avenue	"
23945	Corned Beef Hash	.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
24469	Frankfurter No. 2.	.....	M. Zimmerman, No. 318 East Houston street	"

Meats (Canned and Preserved)—(Continued).

No.	Substance	Brand.	Where Purchased.	Results.
22802	Head Cheese		H. Keichart, No. 315 Third avenue	Unadulterated.
22803	"		Schussler, No. 217 Third avenue	"
22804	"		J. Schultz, No. 161 Third avenue	"
22805	"		A. Mossel, No. 485 Third avenue	"
22806	"		James Hug, No. 365 Third avenue	"
22651	Liverwurst		H. Klein, No. 790 Second avenue	"
22652	"		Wm. Felschow, No. 1037 Second avenue	"
22653	"		L. Dresher, No. 632 Second avenue	"
22654	"		G. Vellner, No. 763 Second avenue	"
22650	"		W. Thomas, No. 717 Second avenue	"
22655	"		B. Weinstock, No. 1105 Second avenue	"
24436	Tripe		Armour & Co., Nos. 42-44 Tenth avenue	Contained 0.54 per cent. borax.
24437	"		G. H. Hammond & Co., No. 52 Tenth avenue	" 0.47 "
24438	"		Swift & Co., Nos. 32-34 Tenth avenue	" 0.59 "
24432	"		Ind. Abattoir Co., No. 50 Tenth avenue	" 0.98 "
24424	"		N. Morris & Co., No. 46 Tenth avenue	" 1.19 "
24417	" Liquid		N. Morris & Co., No. 46 Tenth avenue	" 1.40 "
24436	" "		Armour & Co., Nos. 42-44 Tenth avenue	" Borax.
24437	" "		G. H. Hammond & Co., No. 52 Tenth avenue	" "
24438	" "		Swift & Co., Nos. 32-34 Tenth avenue	" "
24150	Roast Beef			Unadulterated.
22718	"	Veribest	S. B. Reynolds, No. 450 Ninth avenue	"
22717	"	Rex	Andrew Davey, Ninth avenue, cor. Forty-fifth street	"
23968	Potted Beef	Franco-American.	J. Butler, No. 1042 Second avenue	"

Meats (Canned and Preserved)—(Continued).

No.	Substance.	Brand.	Where Purchased.	Results.
24019	Potted Beef	Libbey.	Adams & Co., Twenty-second street and Sixth avenue.	Unadulterated.
23967	" Tongue.	Armour.	J. Butler, No. 1042 Second avenue	"
22716	" Ham	"	A. F. Beckman, No. 225 Ninth avenue	"
23944	Veal Loaf	Libbey, McNeal & Libbey	Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
24020	Deviled Turkey	Star	Adams & Co., Twenty-second street and Sixth avenue	"
23946	Ham Loaf		Bloomingdale Bros., Fifty-ninth street and Third avenue.	"
24468	Sausage		M. Zimmerman, No. 318 East Houston street	"
24470	"		M. Zimmerman, No. 318 East Houston street	"
24471	"		M. Zimmerman, No. 318 East Houston street	"
24488	"		Swift & Co., No. 32 Tenth avenue	"
24489	"		Ind. Abattoir Company, No. 50 Tenth avenue	Contains 0.177 per cent. of borax.
24490	"		Armour & Co., 42 Tenth avenue	Unadulterated.
23775	Gelatin		Milligan & Higgins Glue Co., 222 Front street	"
23776	"		Milligan & Higgins Glue Co., 222 Front street	"
23777	"		Milligan & Higgins Glue Co., 222 Front street	"
22212	Liquid Egg		Herbst Bros., No. 67 Pearl street	Contained 1.003 per cent. of borax.
22711	"		Herbst Bros., No. 67 Pearl street	" 1.150 "
23572	"		Rosengarten & Gebel, 474 East Houston street	" 0.941 "
24439	Pork Loins			Free from preservatives.

No.	Substance.	Brand.	Where Purchased.	Moisture.	Ash.	Ether Extract.
22906	Mace		S. B. Reynolds, No. 450 Ninth avenue	10.29	2.10	29.06
1154	Mustard			4.99	6.07	26.65
1155	"			3.78	4.51	30.93
23655	"		Grand Union Tea Co., No. 474 Ninth avenue	4.95	1.90	20.45
23654	" (ground)	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	5.57	6.27	16.54
23857	"	"	" "	2.97	6.20	20.02
23866	"	"	" "	3.77	7.47	16.75
22314	"	Anco		6.88	6.74	*18.06
23256	"			5.14	5.35	*15.35
22907	" (ground)		S. B. Reynolds, No. 450 Ninth avenue	6.72	6.36	16.21
22908	Mustard "		Henry Brien, No. 482 Ninth avenue	6.69	6.34	15.96
22909	" (seed)		" "	5.64	4.40	28.25
22910	" "		S. B. Reynolds, No. 450 Ninth avenue	5.66	4.56	28.90
23354	"	Blue ribbon		3.73	5.92	19.18
22775	Pepper		John Rudd, No. 2815 Eighth avenue	8.89	5.58	9.97
22778	" (cayenne)		S. Morehouse, No. 2771 Eighth avenue	7.71	5.10	†12.30
22779	" "		F. Ringstorff, 2156 Eighth avenue	7.25	7.36	19.07
23849	"		Atlantic & Pacific Tea Co., No. 267 West street	8.05	5.62	10.05
22780	" (cayenne)		F. Mathews, No. 2741 Eighth avenue	6.77	6.09	19.97
22781	" "		J. Butler, No. 2709 Eighth avenue	7.92	5.51	16.43
22782	" "		John Rudd, No. 2815 Eighth avenue	7.28	6.39	19.87
22772	"		James Butler, No. 2209 Eighth avenue	6.98	5.77	6.33
22773	"		Fred. Matthies, No. 2741 Eighth avenue	8.14	8.77	7.91

* Turmeric present.

† Coal tar dye.

Spices—(Continued).

No.	Substance.	Brand.	Where Purchased.	Moisture.	Ash.	Ether Extract.
22774	Pepper		S. Morehouse, No. 2771 Eighth avenue	6.29	7.18	7.13
23255	" (black)			11.86	7.26	9.21
22776	"		E. Interman, No. 2821 Eighth avenue	8.66	4.04	11.98
23254	" (white)	Priscilla		12.40	1.19	9.49
24621	" (cayenne)		J. Sills, Thirty-seventh street & N. R	3.30	5.07	22.82
24353	Pepper (black, whole)		Wolf, Sayer & Heller, No. 37 Pearl street	11.30	4.07	9.41
23661	Pepper (white)	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	8.83	2.44	10.49
23660	" "		Grand Union Tea Co., No. 474 Ninth avenue	8.60	1.42	8.38
23659	" (cayenne)		" "	5.78	7.04	17.92
23860	"	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	7.32	8.07	6.82
23859	" (white)	"	" "	7.45	3.00	10.17
23861	" (cayenne)	"	" "	5.65	7.81	18.42
23658	" "	"	" "	8.09	7.07	17.97
23657	" (grd. black)	"	" "	9.38	5.74	10.44
22656	"		Grand Union Tea Co., No. 474 Ninth avenue	9.38	5.44	9.32
22777	"		F. Ringstorff, No. 2156 Eighth avenue	7.48	7.22	5.33
23653	Ginger	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	8.27	6.14	5.24
23662	"		Grand Union Tea Co., No. 474 Ninth avenue	8.16	5.26	6.24
23851	"	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	6.67	6.85	6.37
23858	"	"	" "	6.57	8.49	6.67
23862	"	"	" "	6.75	5.15	10.85
23250	Thyme			5.11	22.21	9.94
23249	Sage			6.12	8.28	11.27

Mustards (Prepared).

No.	Brand.	Where Purchased.	Moisture.	Acidity as Acetic Acid.	Ash.
22895	Moutarde Imperiale	J. Butler, No. 522 Ninth avenue	78.00	2.26	3.79
22896	Excelsior	Luigi Pailato, No. 359 West Fortieth street	82.62	2.85	†3.07
22897	Met. French	J. B. Tompkins, No. 527 Ninth avenue	80.44	2.11	‡1.94
22898	Exwaco	H. Helmcke, No. 470 Ninth avenue	81.65	2.94	*2.52
22899	German	S. B. Reynolds, No. 450 Ninth avenue	79.12	2.40	‡1.41
22900	"	G. Jaccagnino, No. 339 West Thirty-ninth street	77.03	2.11	*2.86
22901	Moutarde Diaphone	T. Anderson, No. 551 Ninth avenue	82.35	2.33	†2.60
22902	Williams Bros	Henry Brien, No. 482 Ninth avenue	78.07	2.96	*2.26
22903	Tickle Palate	F. Russo & Maresca, No. 565 Ninth avenue	76.24	2.62	2.73
22904	Moutarde Supérieur	Mrs. Anna Brown, No. 331 West Thirty-ninth street	80.83	2.48	†2.69

* Turmeric and starch present. †Turmeric present. ‡ Starch present.

Soups.

No.	Brand.	Variety.	Where Purchased.	Preservatives.
22183	Campbell's		Fred Nix, No. 1089 First avenue	Absent.
22712	Heinz		Thos. Metzge, No. 213 Ninth avenue	"
22713	Campbell's		J. Joensten, No. 287 Eighth avenue	"
22714	Heinz		J. Butler, No. 353 Ninth avenue.	"
24100	Anderson's.	Lentil	Macy & Co., Thirty-fourth street and Broadway	"

Soups—(Continued).

No.	Brand.	Variety.	Where Purchased.	Preservatives.
24733	Red Letter.....	Mock turtle.....	Geo. H. Groening, No. 2145 Fifth avenue.....	Absent.
24734	"	Vegetable	" "	"
24735	"	Ox tail.....	" "	"
24099	Anderson's.	Pea.....	Macy & Co., Thirty-fourth street and Broadway.....	"

Worcestershire Sauce.

No.	Brand.	Where Purchased.	Total Solids.	Ash.	Ether. Extract.	Acid as Acetic Acid.	Color.
22646	Longfield.....	L. Biegeleiser, No. 57 Avenue D.....	15.72	3.05	1.59	1.40	Natural.
22667	Peerless	J. Butler, No. 1042 Second avenue.....	16.04	3.99	1.95	.90	"
22707	Star	S. Goldberg, No. 825 First avenue.....	4.00	0.89	0.31	1.20	"
22708	Bour Manufacturing Co....	J. Sobler & Co., No. 944 First avenue.....	14.20	2.97	0.66	1.20	"
22709	Bergen's.....	Mrs. J. Baltz, No. 930 First avenue.....	8.51	1.98	0.52	1.40	"
22752	Oriental.....	Israel Ritter, No. 404 East Tenth street.....	8.31	1.30	0.68	1.40	"
24126	.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	15.80	4.68	0.62	0.80	"
24292	*Green Label.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	....	....	....	....	.....
24293	*.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	....	....	....	....	.....
24300	*Mohawk.....	S. B. Reynolds, No. 1748 Lexington avenue.....	....	....	....	....	.....

* Examined for artificial coloring matter and preservatives which were found to be absent.

Tea—Coffee—Cocoa.

Tea.

No.	Substance.	Where Purchased.	Moisture.	Ash.	Soluble Ash.	Theine.
23139	Tea.....	Charles Schulman, No. 146 Broad street, Stapleton, S. I.....	6.70	6.14	3.37	2.80
23142	"	Charles Schulman, No. 146 Broad street, Stapleton, S. I.....	7.33	7.74	3 21	2.17
23528	"	.....	7.70	4.78	3.06	. .
22771	"	F. H. Leggett & Co., No. 188 Franklin street	5.84	8 14	2.08	2.25
22768	"	" "	5.70	5.71	2.05	2.70
22769	"	" "	6.00	4.00	2.08	1.94
22770	"	" "	4.40	7.08	1.80	2.30
22765	"	" "	6.13	6.00	3.00	2.00
22766	"	" "	8.00	6.33	2.80	2.43

Coffee.

No.	Substance.	Brand.	Where Purchased.	Moisture.	Total Ash.	Ash Soluble in H2O.	Ash Insoluble in HCl.	Ether Extract	Caffein	Caffetannic Acid.	Crude Fiber.	Proteïn.
24197	{Coffee Essence}	.....	{Bloomingdale Bros., Fifty ninth street and Third avenue}	.....	.....	.....	.....	.....	Trace	.....	.....	.....
24333	Coffee	.....	.....	9.17	3.08	3.10	None.	15.78	0.97	10.10	13.85	15.04
24332	"	.....	.....	3.50	4.07	3.35	None.	10.03	0.85	10.48	13.58	15.80
22868	"	Liberty.....	J. Butler, No. 1048 Second avenue....	.....	4.71	.....	.....	12.40	1.00	.....	.....	. .

Cocoa.

No.	Substance.	Brand.	Where Purchased.	Moisture.	Total Ash.	Ash Soluble in H2O.	Ash Insoluble in HCl.	Ether Extract	Caffein	Caffetannic Acid.	Crude Fiber.	Proteïn.
24086	Cocoa	Caracas	{Adams & Co., Twenty second street and Sixth avenue}	.....	3.80	1.08	0.19	31.15	.....	.....	1.71	. . . .
22580	"	Bedford	{Louis Chiappe, No. 109 Columbia avenue}	8.48	7.00	. .	.....	10.04	.....	.....	.....	.....
22502	"	Hawley & Hoops, No. 1	Vender	4.81	5.18	..	...	27 13	.....	.....	.....	...

No.	Substance.	Brand.	Where Purchased.	Moisture.	Ash.	Ether Extract.
23848	Allspice	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	7.50	4.04	11.05
23855	"	"	" "	5.80	5.15	11.17
23648	"		Grand Union Tea Co., No. 474 Ninth avenue	7.47	3.99	10.34
23253	"	First Quality		12.33	4.74	9.45
23252	Cinnamon	Blue Ribbon		12.43	5.82	7.20
23863	"	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	6.50	3.23	4.78
23852	"	"	" "	7.52	8.39	3.90
23856	"	"	" "	6.02	3.13	6.55
23650	" (ground)	"	" "	6.89	4.24	4.66
23649	"		Grand Union Tea Co., No. 484 Ninth avenue	7.94	3.86	3.23
22783	"		F. Ringstorf, No. 2156 Eighth avenue	9.12	4.07	3.50
22784	"		F. Matthews, No. 2741 Eighth avenue	9.14	3.58	3.31
22786	"		S. Moorehouse, No. 2771 Eighth avenue	8.21	5.88	4.79
22785	"		E. Interman, No. 2821 Eighth avenue	9.23	10.17	*3.19
23865	Cloves, (ground)	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	6.15	5.66	9.60
23854	"	"	" "	6.50	6.49	22.97
23853	"	"	" "	4.92	6.05	25.97
23850	"	"	" "	5.65	7.59	19.45
23652	"	"	" "	10.40	6.53	16.88
23651	"	"	" "	8.05	5.97	35.28
23251	"	Blue Ribbon		7.31	6.51	14.43
22905	Mace, (ground)		Henry Brien, No. 482 Ninth avenue	10.12	1.91	29.15

*Turmerics present.

Vinegar.

No.	Color.	Where Purchased.	Acid as Acetic.	Mineral Acid.
23138	White	Chas. Schulman, No. 146 Broad Street, Stapleton, S. I	3.80	Sulphuric present.
24382	.....	Louis Karp, No. 181 Ludlow street	4.54	.....
24383	.....	M. & O. Karp, No. 29 Rivington street	3.27	.....
23692	.....	.....	3.80	.....

Olive Oil.

No.	Substance.	Brand.	Where Purchased.	Results.		
22176	.....	Finest Lucca	Bloomingdale Bros., Fifty-ninth street and Third avenue	Unadulterated.	Iodine number	82.11
22177	.....	Extra Vierge.....	Andrew Davey, No. 1063 Second avenue	"	"	82.35
22178	.....	Sublime Lucca....	Fatt Bros., No. 1161 Second avenue,	"	"	79.33
22179	.....	Barton & Guestier	James Butler, No. 1042 Second avenue	"	"	81.12
22180	.....	Jaques Soules....	Fatt Bros., No. 1161 Second avenue	"	"	78.85
22181	.....	Extra Superfine ..	Bloomingdale Bros., Fifty-ninth street and Third avenue	"	"	82.60
22182	.....	Beri.....	J. Jungman, No. 1020 Third avenue	"	"	80.25
*22316	.....	Excelsior	.....	"	"	83.68
*23405	.....	Leghorn	.....	Adulterated with peanut oil.		
*23571	.....	Excelsior.....	.....	Unadulterated.		
*23701	.....	Leghorn.....	.....	"		

NOTE—All of these Oils were examined for Foreign Oils.
* Received from the Chief Clerk's Office.

Spices—(Continued).

No.	Substance.	Brand.	Where Purchased.	Moisture.	Ash.	Ether Extract.
22774	Pepper		S. Morehouse, No. 2771 Eighth avenue	6.29	7.18	7.13
23255	" (black)			11.86	7.26	9.21
22776	"		E. Interman, No. 2821 Eighth avenue	8.66	4.04	11.98
23254	" (white)	Priscilla		12.40	1.19	9.49
24621	" (cayenne)		J. Sills, Thirty-seventh street & N. R.	3.30	5.07	22.82
24353	Pepper (black, whole)		Wolf, Sayer & Heller, No. 37 Pearl street	11.30	4.07	9.41
23661	Pepper (white)	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	8.83	2.44	10.49
23660	" "		Grand Union Tea Co., No. 474 Ninth avenue	8.60	1.42	8.38
23659	" (cayenne)		" "	5.78	7.04	17.92
23860	"	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	7.32	8.07	6.82
23859	" (white)	"	" "	7.45	3.00	10.17
23861	" (cayenne)	"	" "	5.65	7.81	18.42
23658	" "	"	" "	8.09	7.07	17.97
23657	" (grd. black)	"	" "	9.38	5.74	10.44
22656	"		Grand Union Tea Co., No. 474 Ninth avenue	9.38	5.44	9.32
22777	"		F. Ringstorff, No. 2156 Eighth avenue	7.48	7.22	5.33
23653	Ginger	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	8.27	6.14	5.24
23662	"		Grand Union Tea Co., No. 474 Ninth avenue	8.16	5.26	6.24
23851	"	Atlantic & Pacific	Atlantic & Pacific Tea Co., No. 267 West street	6.67	6.85	6.37
23858	"	"	" "	6.57	8.49	6.67
23862	"	"	" "	6.75	5.15	10.85
23250	Thyme			5.11	22.21	9.94
23249	Sage			6.12	8.28	11.27

Mustards (Prepared).

No.	Brand.	Where Purchased.	Moisture.	Acidity as Acetic Acid.	Ash.
22895	Moutarde Imperiale	J. Butler, No. 522 Ninth avenue	78.00	2.26	3.79
22896	Excelsior	Luigi Pailato, No. 359 West Fortieth street	82.62	2.85	†3.07
22897	Met. French	J. B. Tompkins, No. 527 Ninth avenue	80.44	2.11	‡1.94
22898	Exwaco	H. Helmcke, No. 470 Ninth avenue	81.65	2.94	*2.52
22899	German	S. B. Reynolds, No. 450 Ninth avenue	79.12	2.40	‡1.41
22900	"	G. Jaccagnino, No. 339 West Thirty-ninth street	77.03	2.11	*2.86
22901	Moutarde Diaphone	T. Anderson, No. 551 Ninth avenue	82.35	2.33	†2.60
22902	Williams Bros	Henry Brien, No. 482 Ninth avenue	78.07	2.96	*2.26
22903	Tickle Palate	F. Russo & Maresca, No. 565 Ninth avenue	76.24	2.62	2.73
22904	Moutarde Supérieur	Mrs. Anna Brown, No. 331 West Thirty-ninth street	80.83	2.48	†2.69

* Turmeric and starch present. †Turmeric present. ‡ Starch present.

Soups.

No.	Brand.	Variety.	Where Purchased.	Preservatives.
22183	Campbell's		Fred Nix, No. 1089 First avenue	Absent.
22712	Heinz		Thos. Metzge, No. 213 Ninth avenue	"
22713	Campbell's		J. Joensten, No. 287 Eighth avenue	"
22714	Heinz		J. Butler, No. 353 Ninth avenue	"
24100	Anderson's	Lentil	Macy & Co., Thirty-fourth street and Broadway	"

Soups—(Continued).

No.	Brand.	Variety.	Where Purchased.	Preservatives.
24733	Red Letter.....	Mock turtle.....	Geo. H. Groening, No. 2145 Fifth avenue.....	Absent.
24734	"	Vegetable	" "	"
24735	"	Ox tail.....	" "	"
24099	Anderson's.	Pea.....	Macy & Co., Thirty-fourth street and Broadway.....	"

Worcestershire Sauce.

No.	Brand.	Where Purchased.	Total Solids.	Ash.	Ether. Extract.	Acid as Acetic Acid.	Color.
22646	Longfield.....	L. Biegeleiser, No. 57 Avenue D.....	15.72	3.05	1.59	1.40	Natural.
22667	Peerless	J. Butler, No. 1042 Second avenue.....	16.04	3.99	1.95	.90	"
22707	Star	S. Goldberg, No. 825 First avenue.....	4.00	0.89	0.31	1.20	"
22708	Bour Manufacturing Co....	J. Sobler & Co., No. 944 First avenue.....	14.20	2.97	0.66	1.20	"
22709	Bergen's.....	Mrs. J. Baltz, No. 930 First avenue.....	8.51	1.98	0.52	1.40	"
22752	Oriental.....	Israel Ritter, No. 404 East Tenth street.....	8.31	1.30	0.68	1.40	"
24126	.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	15.80	4.68	0.62	0.80	"
24292	*Green Label.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	....	....	....	....	.....
24293	*.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	....	....	....	....	.....
24300	*Mohawk.....	S. B. Reynolds, No. 1748 Lexington avenue.....	....	....	....	....	.....

* Examined for artificial coloring matter and preservatives which were found to be absent.

Preservatives and Disinfectants.

7 samples of formaldehyde—supposed to be 40 per cent. formalin—Percentage formaldehyde varied from 37 to 39.13 per cent.

2 samples of preservaline, composed of—

Sodium sulphite, 82.28 per cent., and 67.18 per cent.

Sodium sulphate, 13.52 per cent., and 33.13 per cent.

2 samples of can cleaner and milk preservative were found to be sodium carbonate.

Candies and Ice-cream.

106 samples of candy were found to be free from injurious ingredients.

14 samples of candy, examined for alcohol; 8 contained alcohol.

4 samples of ice-cream, examined for injurious ingredients; samples found free from injurious ingredients.

4 samples of sugar examined, and found to be unadulterated.

Bread, Flour and Starchy Substances.

7 samples of bread were examined and found to be free from injurious ingredients.

3 samples of cornstarch were examined and found to be unadulterated.

4 samples of flour were examined and found to be unadulterated.

1 sample of grape nuts was examined and found to be free from injurious ingredients.

Drugs.

Antipyrin—

10 prescriptions, calling for 15 gr. powders of antipyrin, have been examined with the following results:

The weight of the powder was:

In 1 powder, between 11-12 grs.

In 1 powder, between 12-13 grs.

In 1 powder, between 13-14 grs.

In 4 powders, between 14-15 grs.

In 2 powders, between 15-16 grs.

In 1 powder, over 16 grs.

Cinchonine—

4 prescriptions, calling for 2.5 gr. capsules of cinchonine, have been examined with the following results:

The weight of the powder in capsules was:

In 1 capsule, between 1-2 grs.

In 3 capsules, between 1-2.5 grs.

Drugs—(Continued).

Cinchonine—

4 prescriptions, calling for 5 gr. capsules of cinchonine, have been examined with the following results:

The weight of the powder in capsules was:

In 2 capsules, between 4-5 grs.

In 1 capsule, between 5-6 grs.

In 1 case quinine was substituted, the weight being 1.85 grs.

Caffein and Phenacetin—

3 prescriptions, calling for phenacetin 5 gr., caffein 1 gr., have been examined with the following results:

The weight of the powder was:

In 3 powders, between 4-5 grs.

In 4 powders, between 5-6 grs.

In 3 powders, between 6-7 grs.

Exalgin—

3 prescriptions, calling for 20 gr. powders of exalgin, have been examined with the following results:

The weight of the powder was:

In 1 powder, between 18-19 grs.

In 1 powder, between 19-20 grs.

In 1 powder, between 25-26 grs.

Phenacetin—

70 prescriptions, calling for 5 gr. powders of phenacetin, have been examined with the following results:

The weight of the powder was:

In 4 powders, between 2-3 grs.

In 15 powders, between 3-4 grs.

In 32 powders, between 4-5 grs.

In 18 powders, over 5 grs.

In 1 of these samples acetanilid was found to be entirely substituted.

15 prescriptions, calling for 7½ gr. powders of phenacetin, have been examined with the following results:

The weight of the powder was:

In 3 powders, between 6-7 grs.

In 12 powders, between 7-8 grs.

In 1 of these samples acetanilid was found to be substituted.

Drugs—(Continued).

Phenacetin—

25 prescriptions, calling for 10 gr. powders of phenacetin, have been examined with the following results:

The weight of the powder was:

In 1 powder, between 7-8 grs.

In 5 powders, between 8-9 grs.

In 16 powders, between 9-10 grs.

In 1 powder, 10 grs.

In 1 powder, between 10-11 grs.

In 1 of these samples triphenin was found to be substituted.

1 prescription, calling for 3-10 gr. phenacetin powders, average weight per powder 8.92 grs. was found to be unadulterated.

1 prescription, calling for 3-2.5 gr. phenacetin powders, was examined with the following results:

The weight of the powder was:

In 1 powder, 1.571 grs.

In 1 powder, 1.679 grs.

In 1 powder, 1.879 grs.

Acetanilid—

1 prescription calling for 8 acetanilid powders, average weight per powder 12.35 grs., was found to be unadulterated.

1 prescription, calling for 2 10 gr. acetanilid powders, average weight per powder 9.77 grs., was found to be unadulterated.

Sulphonal—

5 prescriptions, calling for 15 gr. powders of sulphonal, have been examined with the following results:

The weight of the powder was:

In 3 powders, between 13-14 grs.

In 2 powders, between 14-15 grs.

Carbolic Acid Solution—

5 samples of carbolic acid solution were examined with the following results:

4 samples contained less than 5 per cent. carbolic acid.

1 sample contained 85.93 per cent. carbolic acid.

Medicines (Internal Mixtures)—

85 prescriptions, calling for mixtures to be taken internally, have been examined:

71 were found to be unadulterated.

14 were found to be adulterated with wood alcohol.

Liniments—

18 prescriptions, calling for mixtures to be used as liniments, have been examined and were found to be unadulterated.

Drugs—(Continued).

Lotions—

6 prescriptions, calling for mixtures to be used as lotions have been examined:

5 were found to be unadulterated.

1 was found to be adulterated with wood alcohol.

Prescriptions calling for the following have been examined, and were found to be unadulterated:

7 spirits camphoræ.

8 spirits ammon. arom.

4 spirits lemon.

3 spirits æther comp.

1 spirits menthæ piperitæ.

4 pills (strychnine and quinine).

5 dusting powders.

3 hyoscine hydrobromate.

4 caffein citrated tab. trit. 1 gr.

5 tinctures of arnica.

1 tincture of belladonna.

1 tincture of iodine.

1 tincture of nux vomica.

1 sample of triphenin.

Prescriptions calling for the following have been examined, and were found to be adulterated:

3 tinctures of iodine—with wood alcohol.

1 paregoric—absence of opium.

21 cream of tartar were examined—20 were found to be unadulterated; 1 was found to be adulterated with starch and a carbonate, contained no tartrate.

3 samples of guaiacol—Unadulterated.

Inhaler, "Dr. Jenners"; put up in two bottles—One contained hydrochloric acid, the other ammonia hydroxide and oil of tar.

Obesity medicine—Made up of bladder wrack.

Oil of wintergreen—Unadulterated.

Veronidia—Contained veronal and coumarin. No alkaloids found.

Yellow Oxide of Mercury—Unadulterated.

Nittine—Neutral reaction—Free from fats; very slight residue; [illegible] active substances present not identified.

Atrophin sulphate—Unadulterated.

Sodium salicylate—Contained a sulphate as an impurity

Sodium salicylate—Unadulterated.

Sodium sulphocarbolate—Unadulterated.

Drugs—(Continued).

Migrain Tablets—Acetanilid, 3 grains; caffein citrate, ½ grain; sodium bicarbonate, 1.6 grains.

Migrain Tablets—Acetanilid, 3 grains; caffein citrate, ½ grain; camphor monobromate, ½ grain.

Alcola (three different tablets)—Yellow tablet contained acetanilid; pink tablet, ammonium chloride; brown tablet, probably contained ipecac. These tablets are free from morphine, strychnine, chloral, bromides and iodides.

Saffron—Foreign petals colored with a coal tar dye.

Saffron—Unadulterated.

Catarrh Powder, "Crown Brand"—Contained 1.7 per cent. cocaine hydrochloride.

Catarrh Powder, "Dr. Gray"—Contained 1 per cent cocaine hydrochloride.

Catarrh Powder, "Dr. Burney's"—Contained 1.22 per cent. cocaine hydrochloride.

Nasal Powder—Contained 3.06 per cent. cocaine hydrochloride and 2.54 per cent. menthol.

Catarrhal Jelly, "Kondon's"—No cocaine present.

Morphine—Unadulterated.

Balsam, "Perrin's Pine Tree"—Free from alkaloids, cyanides and bromides.

Glycerine (4 samples)—Do not conform to the U. S. P.; they react for butyric and fatty acids.

Hydrogen Peroxide—Unadulterated.

Creosote—Contained wood and coal tar creosote.

Liquozone—Contained sulphuric acid, 10.33 per cent. grams per litre; sulphurous acid, 1.82 grams per litre.

Pills (little green), F. B. Brooks—Free from alkaloids.

Albumate of Iron (3 samples)—One sample contained ferrous oxide, 0.0513 gms. or 0.7917 grs. per oz.; proteid, 0.3028 gms. or 4.6728 grs. per oz. One sample contained ferrous oxide, 0.0101 gms. or 0.1559 grs. per oz.; proteid, 0.2256 gms. or 3.4815 grs. per oz. One sample contained ferrous oxide, 0.0027 gms. or 0.0417 grs. per oz.; proteid, 0.1217 gms. or 1.8781 grs. per oz.

Blue Ointments (25 samples)—Which varied in mercuric contents from 6.6 per cent. to 60.45 per cent.

Zinc Sulphates (2 samples)—One sample contained chlorides as an impurity; 1 sample conformed to the requirements of the U. S. P.

Analyses Determined for the County Medical Society and Police Department.

Sample—County Medical Society.

6 liquid medicines, examined for composition.

16 tablets, examines for composition.

1 powder, examined for composition.

Police Department.

1 horse ball, examined for arsenic.
1 pipe containing opium, examined for opium.
2 bowls containing opium, examined for opium.
1 hop pick containing opium, examined for opium.
1 extract of ginger, examined for composition.
1 white powder in capsule, examined for composition.
1 box of candy, examined for poison.
3 beers, examined for alcohol.
3 wines, examined for alcohol.
1 milk, examined for poison.
1 pitcher said to contain tea, examined for poison.
1 cup said to contain tea, examined for poison.
2 pies, examined for injurious ingredients.
1 peanuts and sugar, examined for injurious ingredients.
1 can sardines, examined for poisonous metals.
1 steak in bowl, examined for poison.
1 oily liquid, examined for injurious ingredients.
1 medicine, examined for composition.
1 meat, examined for poisonous metals.
4 liquids, examined for chloral.
1 pudding, with pan.
1 stomach.
1 stomach and contents.
1 celery.
1 wine.
1 liquid, examined for chloroform.
2 liquids, examined for opium.
1 liquid, examined for injurious ingredients.
38 substances, examined for opium.
2 substances, examined for composition.
56 liquids, examined for alcohol.
1 liquid, examined for injurious ingredients.
3 powders (white).
1 white liquid.
1 brown liquid.
1 green liquid.

STATEMENT OF WORK PERFORMED IN THE HOSPITALS OF THE DEPARTMENT DURING THE YEAR 1905.

Many improvements and changes have been made during the year 1905 which will place the Hospital Division of the Department on a par with any other. The Willard Parker Hospital was vacated June 17, 1905, for the purpose of enlarging its capacity, remodeling its wards and adding Solaria. This has been accomplished and the building will be opened for patients in a few weeks. The capacity of the old hospital was from 70 to 80 patients—adults and children. That of the new will be double that number, and enable the Department of Health to hold all cases of diphtheria in the Borough of Manhattan at the foot of East Sixteenth street.

Handling of Diphtheria Patients at the Willard Parker Hospital.

All cases of diphtheria are handled as follows: Notification is received from the Division of Contagious Diseases, Fifty-fifth street and Sixth avenue, as to the whereabouts of the case—whether an ordinary case of diphtheria or a case for immediate intubation. The telephone operator at the hospital at once notifies the ambulance station of the call, and an ambulance or coupe (as the case may call for) is sent at once to the address given.

Ambulance and Coupe before Departure.

Each ambulance as it leaves the station is supplied with two sterile blankets, pillow, pillow-case and two gowns, the gowns to be worn into the room by the driver and doctor, coming in contact with the case to be removed. After the return of the ambulance the patient is removed and the ambulance is sent to the disinfecting chamber; the blankets, gowns, etc., go to the sterilizer and are not used in any other case until they have been thoroughly disinfected. A sufficient supply of sterile coverings are always kept on hand for immediate use, and the above cycle occurs after handling of each individual case.

By this simple but stringent measure infections are easily kept out of the wards.

The Patient on Admission.

The patient on admission is removed from the ambulance or coupe by a gowned attendant and taken at once to the examining room.

1. *The Throat*—The throat is thoroughly examined by one of the members of the resident staff, and never left to the care of an inexperienced examiner.

2. *The Culture*—A culture is now taken. A swab is rubbed gently, but thoroughly over the area of exudate and then over the media in the tube. If there be any nasal discharge, a culture is taken from the nose also.

3. *The Body*—The patient removes part of the clothing to allow for an examination for any rash or erythema, and the history of exposure to other infection is thoroughly looked into before the patient passes to the bath.

4. *Admission to Bath Room*—After the bath the patient is again examined for any rash, before admission to the ward.

The patient's clothes are taken care of before leaving the bath room and all articles are tabulated. Valuables are turned over to the office. Every search is made in the presence of a second person. Clothes, etc.. are put into a sack, marked with the name of the patient, numbered and delivered to the disinfecting station.

If there should be any rash on admission, the patient is at once transferred to the isolation ward for observation, and the room in which said patient was admitted is thoroughly fumigated. With such constant and vigilant care on the part of the house officer, mixed infection may be reduced to a minimum.

Intubation Cases.

Intubation cases are handled in a similar manner to the ordinary cases, but in taking a culture on admission, care should be used not to have the tube expelled by the procedure, and to get a thorough swab of the laryngeal secretion at the time of expiration or coughing. By so doing, cultures will be much more satisfactory in the majority of cases, Frequently, culture from laryngeal cases give negative results and ofttimes no positive culture is obtained until the time of extubation, when a culture is taken from the lower end of the extubation tube.

The Case in the Ward.

Is thoroughly examined as to the condition of the local manifestations, glands, eyes, ears, heart, lungs, etc.

Antitoxin.

Orders are always given as to antitoxin by one of the house staff, and the amount to be given as to number of units is never decided upon until the true condition of the patient has been carefully looked into, the number of days ill before admission and the extent of the exudate. All must be taken into consideration and not any one sign or symptom—the true clinical appearance of the case—the severity of the disease. The other treatment is symptomatic, dietetic and hygienic.

Doses of antitoxin are repeated in 12 to 24 hours, according to the amount of toxœmia.

Intubation cases, receive from 5,000 to 10,000 units, according to the case, as to general condition, number of days ill, etc., as above. The minimum dose in a "tube" case, is 5,000 units. If cases have received antitoxin before admission and the amount known, the dose is graded accordingly. In very severe cases the dosage has been very high—20.-30.-60.-70,000 units at intervals of 18 to 24 hours, according to the case, with very satisfactory results.

In case of primary broncho pneumonia with a diphtheretic bronchiolitis, the dose is always larger. For the treatment of other cases of broncho pneumonia; on admission the patient as soon as diagnosed is isolated, and those of a doubtful nature are put in the stall wards until a sufficient clinical picture enables the diagnosis to be made. By the use of the stall wards the spread of broncho pneumonia as an epidemic in the ward has been reduced.

The Care of Female Patients, Children, Etc.

All female adults are examined on admission for vaginal discharge by the head nurse, and if any such discharge is found, the same is at once brought to the attention of the house officer.

In children (females) on admission, a smear from the vaginas is taken and sent to the laboratory for diagnosis. If any discharge is present the case is at once isolated, before the bacteriological report is made. This also applies to female adults.

All cases showing the presence of cocci in smears are isolated and treated for the same.

The nurse in charge must wear rubber gloves, see that all strict sanitary precautions are carried out—that each case, as in case of children, where temperatures are taken per rectum, that a separate thermometer is kept for each case and that each time it is used it is sterilized.

The treatment of the vaginitis is by injection, etc. Before cases of vaginitis are discharged there must be no discharge, and from each individual case there must be two negative reports as to smears from the laboratory.

After the disappearance of the organisms the case is discharged cured, from the isolation ward and never returned to the non-infected ward.

Discharge of Cases of Diphtheria.

There must be no visible exudate at the time of the taking of secondary cultures, which is usually approved of from 7 to 10 days. At this time secondary cultures are taken and after two consecutive clinical cultures, the patient is discharged cured.

In Croup and Intubated Cases.

After extubation, no culture should be taken until all symptoms of croup have subsided. Then, after two negative cultures, the patient is discharged.

The following is a list of cases treated of the Willard Parker Hospital, from January 1, to June 17, 1905:

Total number of cases treated	485
Total number of cases discharged	355
Total number of cases transferred	31
Total number of cases died	99

Intubation Cases.

Total number of cases treated	114
Total number of cases discharged	78
Total number of cases transferred	11
Total number of cases died	08

This covers a period of six months for the Willard Parker Hospital.

The Reception Hospital.

For the last six months of 1905, the Reception Hospital has been used for the reception of all classes of cases. After the close of the Willard Parker Hospital in June, two wards, viz., 12 and 13, were set aside for cases of diphtheria. All patients received at this hospital have been transferred from time to time. Not at any time has any case in a moribund condition, or in any condition unfavorable for transfer, been transferred to the other hospitals. Such cases have been held until discharged or until their condition proved favorable for transfer. In the diphtheria service, patients were treated as in the Willard Parker Hospital—antitoxin was administered, a culture taken and a thorough physical examination made before being transferred. Cases were examined most carefully on admission for any rash or erythema and if such was present, transferred to an isolation ward and held for observation. In the other wards there have been numberless cases of all classes treated and the disinfection and fumigation of these wards from time to time has been so thorough that no infection has occurred.

In The Scarlet Fever Ward.

All cases are thoroughly examined by a house officer and in order to protect them from infection of diphtheria on admission have been immunized. As in the diphtheria cases, those too ill for transfer are retained.

The Measles Ward.

Patients are examined in a similar manner, and also protected by doses of antitoxin.

In the other wards there have been numerous observation cases and such cases are held until a diagnosis has been made.

Mixed Cases.

These have been treated in large numbers, viz.: measles and diphtheria, whooping cough and diphtheria, chickenpox and scarlet fever, etc.

All of the cases admitted to the Reception Hospital are vaccinated on admission. Cultures are taken from all cases of diphtheria, scarlet fever, or observation scarlet or diphtheria. In fact, any disease that has in combination scarlet fever or diphtheria.

The Admission of Cases.

A gowned attendant removes the case from the ambulance or coupe to the respective ward. These gowns are obtained from the gown room and never return to the same until thoroughly disinfected and sterilized and returned from the laundry.

In the handling of such a mixed service one must be very cautious so that no disease will be carried from ward to ward. All employees and attendants change gowns as they leave the ward and wash their hands thoroughly with soap and water and immerse them in a bichloride solution. Hoods are also employed to cover the hair. All visitors are treated in a like manner, and must also wash their hands and face before entering the ward and on leaving.

If this procedure be thoroughly carried out, the number of mixed infection cases will be greatly reduced. At no time has there been a case of infection carried to any of these wards by a third person.

During the past few months a canopy has been erected about the wards, thereby enabling patients in time of transfer to keep under cover. This has greatly facilitated the handling of the cases.

The following is a list of the cases in general treated at the Reception Hospital for the year ending December 31, 1905:

Total number of cases treated	1,960
Total number of cases discharged	193
Total number of cases transferred	1,623
Total number of cases died	131

The Scarlet Fever Hospital is almost completed and would have been occupied had the contract of the builder been carried out to the satisfaction of the Department and its architect. It presents a fine appearance and will, when accepted, contain 225 beds and cribs. The wards are well arranged, one wing being devoted to mixed cases of scarlet fever and diphtheria. This portion is entirely separated from the main portion of the building and has its own entrance and exits. The solarium on the top floor is inclosed in glass, and is large enough to care for all the convalescents.

The Administration Building, which will be devoted to clinical work of the entire institution, and as a home for the medical staff and the

nurses, is nearly completed. The walls are being decorated and the building presents as handsome as well as a homelike appearance. This will certainly be appreciated by all, as the accommodations up to this time have been very poor.

The laboratory has been occupied for some months by the bacteriological and chemical laboratories, four floors of this building being devoted to the work. The other floors are occupied by employees—their dining rooms, kitchen and the general store room. The old pavilion formerly used as an annex to the Willard Parker Hospital has been altered and converted into a temporary boiler house, in which six boilers have been set up. This will do away with the two separate sets of boilers and furnish heat for the entire plant.

The former boiler houses of the Reception and of the Willard Parker Hospitals were converted into a general kitchen and baby ward, respectively.

At the north end of the ambulance and vaccine stable, a coal storage structure is in process of erection and the animal house formerly occupying this space has been removed to the north side of the antitoxin laboratory.

The improvements made at the Kingston Avenue Hospital have been many and varied. A Nurses' Home which was opened this spring, is an extremely satisfactory and highly ornamental building, with its decorated parlors, dining rooms and forty-one (41) bed rooms. This building has added much to the appearance of the institution and to the comfort of the nurses and employees, although it is but partly finished, one wing remaining to be built. Owing to the increased number of nurses, this wing will soon become a necessity, as the addition of the new Scarlet Fever Pavilion has increased the number of patients to such an extent that the present number of nurses has filled the present home.

The Scarlet Fever Pavilion which was built with an idea to have sufficient accommodation for eighty (80) patients and to be thoroughly antiseptic, is furnished with the most modern furniture, its dressing rooms being fully equipped with instruments. In addition there is, at present, a temporary operating room as well furnished in every respect as the rest of the building.

Other additions which have been made to the hospital are: Crematory, stable—which is still in the process of construction—refrigerating plant and an addition to the laundry. The grounds of the institution have been laid out by a landscape engineer and the work has been carried on continuously during the past year. Trees have been planted, shrubbery laid out and the grounds have been brought up to grade by filling in. This process of filling in and grading is still going forward and it will not be long before the grounds will be raised to the level of the streets.

The general rules in handling all patients at this institution are as follows: Notice is sent from the Division of Contagious Diseases that a case is ready for removal. The telephone operator at the institution notifies the ambulance station for either an ambulance or coupe to make the call, the ambulance and coupes following the rules established for the Willard Parker and Reception Hospitals. When the patient is received at the hospital the patient is removed by a gowned attendant and placed in the ward after a careful examination as is possible to make without isolation. Greatest care is exercised in examining the patients, general rules are carried out consistently before the patients are assigned to their beds. These patients at the proper time for their discharge from the hospital are examined by the regular diagnostician of the Department who passes upon each case separately and no patient is discharged without being properly examined by the diagnostician. In diphtheretic cases the same general rule of two consecutive negative cultures are necessary before the patient can be discharged. In addition to the regular cases which are treated at this institution, the Immigration Bureau adds its number. The general rule of the Immigration Department is to notify, by telephone, at the time of forwarding the cases. These patients are forwarded by ambulances in the charge of the Immigration Department and are received at the hospital by the Resident Physician. There being no chance for isolation, diagnoses are made upon their admission and they are immediately sent to their respective wards where a further examination is made. Owing to the class of patients and the fact that many of them are unable to understand or speak our language it is difficult to obtain any information as regards previous history and consequently mixed infection is apt to

happen after the patient has been received in the ward. The number of cases have increased wonderfully during the past three years and herewith is appended a statement of the cases received during the past three years:

1903.

Number of cases treated	1,301
Number of cases discharged	1,085
Number of deaths	162

1904.

Number of cases treated	1,708
Number of cases discharged	1,402
Number of deaths	224

1905.

Number of cases treated	2,081
Number of cases discharged	1,687
Number of deaths	248

STATEMENT OF WORK PERFORMED IN THE WILLARD PARKER AND THE RECEPTION HOSPITALS DURING THE YEAR 1905.

Attention is called to the following improvements during the year 1905:

1st. The Willard Parker Hospital is undergoing complete remodeling and alteration. The interior wards have been enlarged and new rooms furnished. New plumbing work is being installed throughout. On the exterior of the hospital large inclosed solariums and new improved fire-escapes have been built. In every other respect the hospital has been designed so as to be furnished and fitted with the most modern facilities.

2d. The office of the clerk of the hospital is now temporarily on the second floor of the vacant Research Laboratory.

3d. In the new Laboratory Building, the second floor, rooms are occupied by the matron, doctors, and supervisor of nurses, and for the storage of Willard Parker goods.

4th. On the first floor of the new Laboratory Building, new French combination coal and gas range has been installed. The kitchen is in constant use for cooking, and the dining room is used by the employees employed in the several buildings. The doctors use the reception room as a dining room.

5th. The new store room has been fitted up with all the most modern improvements and is about to be opened, a telephone has been placed in the office of same.

6th. The new drug room is also about to be opened, the same has been supplied with shelves and closets, etc., and is situated on the first floor of Laboratory Building.

7th. The chemical laboratory has been removed from Fifty-fifth street to the third floor of the new Laboratory Building, the same has been fitted with the most modern facilities. Telephones have been installed.

8th. A new domestic sewing machine has been provided.

9th. Fifty-seven mattresses for nurses and help have been renovated and re-covered.

10th. The pillows that were formerly in use at Willard Parker for patients and nurses have been re-made and put in first class condition.

11th. The telephone switch board has been removed to the gate house, and new conduits have been laid for the fire alarms, watchman's clock and telephone wires.

12th. The Avenue C house has been painted throughout (halls and nurses rooms).

13th. A section of the store has been set aside for a depot for disinfectant, and a sink with hot and cold water supply has been installed.

14th. New plate glass window put in store front, and new wire mesh guards provided for each window of store.

Reception Hospital.

15th. On the dock a wooden structure with slate roof and metal covering on the outside has been erected to be used as a waiting room for the convenience of persons awaiting discharged patients from Riverside Hospital.

16th. At the north, south and east side, canopies have been erected with iron railings and gates so that the entrance to the wards are protected from the weather and as a means of security to the hospital.

17th. Reception Hospital has been painted throughout.

18th. Aseptic instrument cases, white enameled front and sides have been provided.

19th. One-half dozen glass top, white enameled ward tables have been added.

20th. The toilets have been put in first class condition.

21st. New white blankets for beds and cribs have been added.

22d. Kitchen and dining rooms repainted and electric fans installed.

23d. New hot water tank in kitchen.

24th. Woodwork repaired and new locks placed where needed.

25th. All the metal work has been repaired.

26th. The ventilators have been put in first class condition.

27th. New beds and cribs have been put in every ward.

28th. Wrought iron fence has been renovated.

29th. Two (2) outside lamps have been installed.

30th. Reception Hospital is now in first class condition.

31st. Owing to excavating for new sidewalks in front of the New Administration Building the office of the Sanitary Inspector detailed to construction of buildings has been removed from its former site to a new location in front of Laboratory Building.

32d. At the north side of the ambulance and vaccine stations a coal storage station has been erected. The animal house, formerly on the site of same, has been moved to the north side of the antitoxin laboratory, in consequence access through the old roadway to the morgue is not practical, it has been determined to provide a new roadway at east side of antitoxin laboratory by altering same and removing the porch.

33d. That the windows of the new scarlet fever pavilion, administration building, new laboratory, the vaccine, research and antitoxin laboratories and ambulance station have been equipped with safety window guards for cleaning windows.

34th. The old broken flagging in front of iron gate at entrance to Willard Parker Hospital grounds has been replaced by new flagging.

35th. New paint shop has been constructed.

36th. Two (2) new electric motors have been installed in the vaccine laboratory, one of which will be used for clipping calves, and the other for vaccine virus.

37th. Vaccine laboratory and calf stable have been renovated and re-painted.

38th. The disinfecting chamber at rear of disinfecting station has been rebuilt and extended in length, including new doors, to allow accommodation for disinfecting of ambulances, carriages, coupes and other vehicles.

39th. New shelving was placed in all the laboratories where needed.

40th. New locks were placed in the antitoxin laboratory.

41st. The crematory has been placed in good shape.

42d. The old boilers, formerly in the Reception Hospital boiler house have been reset in the new temporary boiler house, now being finished.

43d. The old Reception Hospital boiler house, which is now entirely vacant is to be converted into a kitchen, the work on same is progressing rather slowly.

44th. The disinfecting station has been put in first class condition.

45th. The old one-story pavilion at the north side of Willard Parker formerly used as an annex to the hospital has been altered and converted into a temporary boiler house in which four new boilers and the two old boilers, formerly used in the Reception boiler house have been installed. It is the purpose to furnish all heat and power for the buildings throughout from this plant. The entire plant is now in operation.

Ambulance Station

46th. Has been painted throughout.

47th. New doors have been provided at the front and side entrances.

48th. The Croton water pipes have been repaired here with the floor.

49th. New cement flooring put down.

50th. The toilet system has been put in first class condition.

51st. Temperature regulator connected under runway.

52d. The runway has been renovated and put in good shape.

53d. The ceiling has been repaired and re-plastered.

54th. Ambulances Nos. 1, 2, 3 and single wagon No. 2 were overhauled and re-painted.

55th. Three new horses and two new sets coupe harness have been added.

56th. Goods van No. 10 thoroughly overhauled and put in first class condition.

57th. Rubber coats and rubber boots have been provided.

58th. Fourteen sets water and dust-proof bands have been attached to the wagons, both single and double.

59th. Elevator repaired and put in first class condition.

60th. Elevator shaft re-painted, etc.

61st. New electric motor has been installed, to be used for the clipping of horses.

62d. The ambulance station is now in first class condition.

It is recommended—

First—That the waiting room adjacent to Reception Hospital be enclosed with proper and suitable doors and window sash, and that steam heating apparatus and gas light be installed.

Second—The grounds of the Willard Parker Hospital, extending from the Street Cleaning Department to the river and embracing all the thoroughfares, through the grounds, about the buildings erected thereon are not lighted. In consequence intense darkness prevails at night. The passages are dangerous, and being open, permit of trespass by persons having no legitimate business with the hospital or buildings. I would recommend that a suitable system of electric lights be installed, and in such a manner that all parts of the grounds will be completely lighted.

Third—The grounds are not graded or paved, and as a result of building operations are uneven earth surfaces. In wet weather damp, and in dry weather causing the rooms in buildings to be dirty from dust blown through the windows. I would respectfully recommend that the grounds be properly graded and paved.

Fourth—That the east side of the antitoxin laboratory building be altered and the porch removed, in order to provide a new and proper roadway to the morgue.

Fifth—That a fence be erected between the administration building and the scarlet fever pavilion.

Sixth—That railroad tracks be laid from boiler house to steam scow laying at north side of hospital grounds, and that cans be provided to carry away the ashes.

Seventh—That the stable be enlarged.

SUMMARY.

Reception Hospital.

	1903.	1904.	1905.
Number of persons treated	1,850	2,105	1,960
Number of persons discharged	155	180	193
Number of persons died	78	84	131

Willard Parker Hospital.

	1903.	1904.	1905.*
Number of persons treated	1,293	1,410	485
Number of persons discharged	794	951	355
Number of persons died	356	356	99

* Willard Parker Hospital has been closed since June 17, 1905.

STATEMENT OF WORK PERFORMED IN THE KINGSTON AVENUE HOSPITAL DURING THE YEAR 1905.

MEDICAL STAFF.

The medical staff consists of a Resident Physician, Assistant Resident Physician and four Internes which is the same as at the beginning of the year. The term of service for Internes which was formerly four (4) months has been changed to six (6) months for the good of the service. The standard of requirements for appointment has been raised in that each applicant must have a previous hospital experience.

NURSING STAFF.

The number of nurses has been increased from twenty-three (23) to thirty-six (36), including two (2) head nurses, one for day and one for night duty.

BUILDINGS.

Administration Building—New awnings have been supplied for porch and windows. Porch, hall floor and rear stairs have been repainted. Plumbing overhauled and repaired. A new large telephone switchboard installed. Part of hall on second floor partitioned off to allow for additional sleeping quarters for the staff. Since then the Matron has moved to the Nurses' Home, making two more rooms available for the medical staff. The clerks were moved into the old telephone room, thereby giving them larger and more suitable quarters. The room vacated by the clerks was used to enlarge the drug room, which previously was entirely inadequate for the purpose. A 60-foot flag pole has been erected in front of the Administration Building.

Laundry—The laundry which was much too small has been enlarged by the acquisition of the old disinfecting room. The gross partitions were removed and an air-tight compartment, 7 by 10 feet, built for the reception of infected clothes. A new cement floor has been laid and a new mangle installed.

Stable—Various changes have been made from time to time to meet the requirements of the service and a new stable is now in process of erection. In the new stable is incorporated a large disinfecting chamber for ambulances. A new Mercedes automobile ambulance has been added to the hospital equipment. It was found necessary, owing to lack of stable room, to convert the old paint shop into a temporary garage.

Disinfecting Station—The disinfecting station has been much improved by the addition of a large sterilizer of the most improved pattern. A large shed to protect goods in the process of unloading is now in course of construction.

Laboratory—Electric lights have been provided for the laboratory and awnings for the windows. A room has been set apart and equipped for the use of the internes in doing urinalysis and microscopical work. An outside stairway to provide an independent entrance into the laboratory is now in course of construction.

Crematory—A new crematory of the latest and most approved pattern has been erected adjoining the new boiler house and is connected with the boiler house chimney.

Refrigerating Plant—A new refrigerating plant has been erected. This plant enables us to turn out from ten to twelve (10-12) tons of ice

daily and in addition furnishes excellent storage facilities for all perishable food supplies.

Boiler House—Electric lights have been installed. The old boilers have been overhauled and two new ones contracted for.

Pavilions—The old pavilions have been repaired from time to time and new plastic slate roofs put on pavilions No. 1, 2, 3, 4, 5 and 6. Pavilion No. 7 is now supplied with electric lights. A new brick pavilion of the most improved construction and equipped with up to date furnishings, accommodating eighty (80) patients has been completed and is now in use for the Scarlet Fever service. The windows have been fitted with copper screens and awnings.

Nurses' Home—A new Nurses' Home has been completed and is now in use. This building contains forty-one (41) sleeping rooms, parlors, dining rooms, kitchens, sewing room, etc. It is well furnished and equipped to provide for the comfort of the nursing staff as it now exists.

Morgue—The old morgue being in a very dilapidated condition and practically unsafe, it was found necessary to provide a temporary morgue which would serve the purpose until the new morgue is built, plans for which are now being prepared. This temporary morgue is situated between the coal house and the stable.

Hospital Grounds.

The premises have been cleared and generally improved, the rubbish and condemned articles have been removed and destroyed. The settling tanks have been thoroughly cleaned. The temporary wire fence on the Kingston avenue side extended for 500 feet up to the Kings County property on Winthrop street. The wire fence on the Albany avenue side shifted and 538 feet of new wire fence added to complete the same up to Winthrop street and Albany avenue. 400 feet of wire fence rebuilt on Rutland road. 78 shade trees planted on sidewalks surrounding hospital. A new iron fence on Albany avenue and along Rutland road has been erected and the temporary wire fence removed. Winthrop street dividing the Kingston avenue and Kings County properties has been opened and 700 feet of temporary wire fence erected to inclose the Kingston avenue property. The grounds around the new pavilion have been graded and are now ready for the planting of the shrubberies. Ten thousand four hundred and fourteen (10,414) cubic yards of dirt have

been used in filling in and grading around the new Nurses' Home and between the diet kitchen and Administration Building. The process of filling in and grading is still going forward. In addition to this some eight hundred (800) cubic yards of top soil have been placed about the Nurses' Home and those grounds are now ready for planting. The old board-walk on south side of Administration Building has been replaced by a new one. The terrace surrounding the Administration Building graded and resoded. An additional arc light placed on terrace in rear of Administration Building. The conservatory is being fitted with steam and water. A new pipe drench for the reception of all pipes leading to and from the present buildings and those proposed is now being built.

In General.

During the year many additions have been made in the equipment of the Hospital by way of surgical instruments, bedding and ward furniture.

It is recommended—

1. That the other wing be added to the Nurses' Home.

2. That a new administration building be built.

3. That two new pavilions be erected.

4. That six isolation cottages be erected. Owing to the fact that we have at present no facilities for isolating patients it is absolutely necessary that two of these cottages should be built at once.

5. That the permanent iron fence be extended to surround the entire plant.

6. That an areaway be built around the store-room and laundry to permit the filling in and grading around those buildings.

7. That the sewerage of the hospital be drained into the city sewer, thereby doing away with the settling tanks now in use.

8. That a watchman's lodge be built near the gate on Albany avenue and Fennimore street.

9. That Rutland road from Albany avenue to Kingston avenue and Kingston avenue from Rutland road to Winthrop street be paved with asphalt. Rutland road from Kingston avenue to Nostrand avenue be graded, curbed and paved with asphalt.

GEORGE T. STEWART, M. D.,
Superintendent of Hospitals.

LANE MEDICAL LIBRARY

To avoid fine, this book should be returned on or before the date last stamped below.

I122 New York (City) Board
N52 of health.
1905 Annual report. 29412

NAME	DATE DUE